## GENESeeker

List of variants analysed for the Geneseeker panel version 3.1, however, only variants classified as pathogenic and likely pathogenic at the time of analysis are reported.

## PATIENT 3.1

| GENE | DISEASE NAME | VAR NAME |
| :---: | :---: | :---: |

ABCA4 Stargardt disease 1 including Cone-rod dystrophy 3

| ACAD9 | Mitochondrial complex I deficiency | NM_014049.5:c.c.23delT, NM_014049.5:c.c.130T>A, NM_014049.5:c. 358 delT, <br>  NM_014049.5:c.1240C>T, NM_014049.5:c.1249C>T, NM_014049.5:c.1594C>T |
| :---: | :---: | :---: |
| ACADM | Medium-chain acyl-CoA dehydrogenase deficiency | 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_449deITGAC, NM_000016.6:c.447G>A, NM_000016.6:c.447G>T, NM_000016.6:c.616C>T, NM_000016.6:c.617G>A, NM_000016.6:c.683C>A, NM_000016.6:c.734C>T, NM_000016.6:c.797A>G, NM_000016.6:c.799G>A, NM_000016.6:c.815_827delTTGCAATGGGAGC, NM_000016.6:c.890A>G, NM_000016.6:c.984delG, NM_000016.6:c.985A>G, NM_000016.6:c.1100_1103deIAGTT |
| ACADS | Acyl-CoA dehydrogenase, short-chain, deficiency of | NM_000017.4:c.1147C>T |
| ACADSB | 2-methylbutyrylglycinuria | 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.c.159G>A |
| ACADVL | Very long-chain acyl-CoA dehydrogenase (VLCAD) deficiency | NM_000018.4:C.278-1GTA, NM_000018.4:C.295_296delAC, NM_000018.4:C.343-1delG, <br> NM_000018.4:c. $685 \mathrm{C}>\mathrm{T}$, NM_000018.4:c. $739 \mathrm{~A}>\mathrm{C}$, NM_-000018.4:c.753-2A A C, <br> NM_000018.4:c.848T>C, NM_000018.4:C.8990_892delAAGA, NM_000018.4:c. 1096C>T, <br> NM_000018.4:C.c.1097G>A, NM_000018.4:C.1106T>C, NM_000018.4:C. 1139 _1141delAGG, <br> NM_000018.4:c.1182+1G>A, NM_000018.4:c.1357C>T, NM_000018.4:c.1360G>A, <br> NM_000018.4:c.1373_1374insC, NM_000018.4:c.1385_1386insG, <br> NM_000018.4:c.1406G>A, NM_000018.4:C. $14686 \times$ C, NM_000018.4:c.1532+1G>A, <br> NM_000018.4:c.1837C>T, NM_000018.4:c.1843C>T, NM_000018.4:c.1844G>A, <br> NM_000018.4:c.1882delC |
| ACAT1 | Beta-Ketothiolase Deficiency | NM_000019.4:c.2T>A, NM_000019.4:c.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 Deficiency |  |
| ADA | Adenosine deaminase deficiency | NM_000022.4:c.986C>T, NM_000022.4:c.956_960delAAGAG, NM_000022.4:c.890C>A, <br> NM_000022.4:c. $872 \mathrm{C}>$ T, NM_000022.4:c. $632 \mathrm{G}>\mathrm{A}, \mathrm{NM} \_000022.4: \bar{c} .320 \mathrm{~T}>\mathrm{C}$, <br> NM_000022.4:c.247G>A, NM_000022.4:c.226C>T |
| ADAMTS2 | Ehlers-Danlos syndrome, type VII-C | NM_014244.5:c.2 2384G>A |
| AGA | Aspartylglucosaminuria | 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 disease IIIa/IIIb (Cori or Forbes 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.1222C>T, NM_000642.3:c.1481G>A, NM_000642.3:c.1485delT, NM_000642.3:c.1783C>T, NM_000642.3:c.1999delC, NM_000642.3:c.2039G>A, NM_000642.3:c..2590C>T, NM_000642.3:c.3214_3215delGA, NM_000642.3:c. $3980 \mathrm{G}>\mathrm{A}, \mathrm{NM}$ _000642.3:c. $4260-12 \mathrm{~A}>\mathrm{G}, \mathrm{NM} \_000642.3: \mathrm{c} .4260-1 \mathrm{G}>$ T, NM_000642.3:c.4342G>C, NM_000642.3:c.4454delT, NM_000642.3:c.4528_4529insA |
| AGPS | Rhizomelic Chondrodysplasia Punctata, Type 3 | NM_003659.4:c.926C>T, NM_003659.4:c.1256G>A, NM_003659.4:C.1406T>C, NM_003659.4:c.1703C>T |
| AGXT | Hyperoxaluria, primary, type 1 | NM_000030.3:c.25_26insC, NM_000030.3:c. $32 C$ C A, NM_000030.3:c. 121 G >A, NM_000030.3:c.166-2A>G, NM_000030.3:c.245G>A, NM_000030.3:c.c.248A>G, NM_000030.3:c.322T>C, NM_000030.3:c.454T>A, NM_000030.3.c.466G>A, <br>  NM_000030.3:С.6.613T>C, NM_000030.3:с.697C>T, NM_000030.3:с.698G>A, NM_000030.3:с.731T>C, NM_000030.3:c.7386>A, NM_000030.3:с.836T>C, NM_000030.3:c. $860 \mathrm{G}>\mathrm{A}$ |

## Juno Genetics España

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16/01/2024: Geneseeker panel version 3.1

## GENESeeker

List of variants analysed for the Geneseeker panel version 3.1, however, only variants classified as pathogenic and likely pathogenic at the time of analysis are reported.

## PATIENT 3.1

| GENE | DISEASE NAME | VAR NAME |
| :---: | :---: | :---: |


| ALDOB | Hereditary fructose Intolerance | NM_000035.4:c.1067C>A, NM_000035.4:c.1027TTC, NM_000035.4: :c.1013C>T, <br>  <br> 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 of Glycosylation, Type 1C | NM_013339.4:c.53G>A, NM_013339.4:c.316C>T, NM_013339.4:c.482A>G, NM_013339.4:c.495-3C>G, NM_013339.4:c.893_895delTAA, NM_013339.4:c.998C>T, NM_013339.4:c.1432T>C |
| ALMS1 | Alstrom syndrome | NM_001378454.1:c.888_904delTCAGCACCCGCTATAG, NM_001378454.1:c.c.1571_1573delCTCCinsT, NM_001378454.1:C.8161C>T, NM_001378454.1:c.8380C>T, NM_001378454.1:c.9998-16>A, NM_001378454.1:C.10576_10577delAT, NM_001378454.1:c.c.10772delC, NM_001378454.1:C.:11311_11314delAGAG, NM_001378454.1:C.:11446CヤT, NM_001378454.1:C:11448_11449inss, NM__001378454.1:C.11607_11608delcT, NM_001378454.1.:c.11613_111614delCT, NM_001378454.1: :c.12436C>T, NM_001378454.1:C.12442CTT |
| ALPL | Hypophosphatasia, infantile |  <br>  NM_000478.6:C.5266>A, NM_-000478.6.c.c.535G>A, NM_000478.6:c.c.571G>A, <br>  NM_-000478.6:c:.8926>A, NM_000478.6:C.C.10016>A, NM_000478.6:c.c.1333A>T, NM_000478.6:C.1250A>G, NM_000478.6: :c. 1306T>C, NM_-000478.6:C.13666>A, NM_000478.6:c.1574delG |
| AMT | Glycine encephalopathy (AMTrelated) | NM_000481.4:C.959G>A, NM_000481.4:c.826G>C, NM_000481.4:c.8066G>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 insensitivity syndrome, X-Linked | NM_000044.6:c.340C>T, NM_000044.6:c. $1769-11 T>A$, 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: :.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, <br> NM_000487.6:c.1401_1411delGTTAGACGCAG, NM_000487.6:c.1283C>T, <br>  <br> NM_000487.6:c.1175G>A, NM_000487.6:C. 11744 CT, NM_000487.6:c.c.1150G>A, <br> NM_0000887.6:c. 11255 _1126delCT, NM_000487.6:c. 1108 -2A A GG, NM_000487.6:C. $991 G>$ T, <br> NM_000487.6c.c.986C>T, NM_000487.6.C.c.979G>A, NM_000487.6c.c.938G>A, <br> NM_000487.6:c.937C>T, NM_000487.6.c.931G>A, NM_000487.6:c.899T>C, <br> NM_000487.6:c.883G>A, NM_000487.6.c.8669G>T, NM_000487.6:.8669G>A, <br>  <br> NM_000487.6:c.739G>A, NM_000487.6:c.737G>A, NM_000487.6:C. $641 \mathrm{C}>\mathrm{T}$, <br> NM_000487.6:c.583delT, NM_000487.6:c.582delC, NM_000487.6:c.542dupT, <br> NM_000487.6:C.542T>G, NM_000487.6:C.465+1G>A, NM_000487.6:c.346C>T, <br> NM_000487.6:C. 3026 ©A, NM_000487.6:c.293C>T, NM_000487.6:C.C.2576>A, <br> NM_000487.6:c.195delC, NM_000487.6:c. 3 :3delG |
| ARSB | Mucopolysaccharidosis, Type VI (Maroteaux-Lamy) | NM_000046.5:c.1562G>A, NM_000046.5:c.1438dupG, NM_000046.5:c.1366C>T, -NM_000046.5:c.1214G>A, NM 000046.5:c.1178A>C, NM_000046.5:c.1161dupC, NM_000046.5:c.1143-1G>C, NM_000046.5:c.1143-8T>G, NM_000046.5:c.979C>T, NM_000046.5:c.971G>T, NM_000046.5:C.944G>A, NM_000046.5:c.937C>G, NM_000046.5:c.921delA, NM_000046.5:c.753C>G, NM_000046.5:c.707T>C, NM_000046.5:c. $629 \mathrm{~A}>\mathrm{G}, \mathrm{NM}$ _000046.5:c. $589 \mathrm{C}>$ T, NM_000046.5:c.571C>T, NM_000046.5:c.427delG, NM_000046.5:c.410G>T, NM_000046.5:c.389C>T, NM_000046.5:c..349T>C |
| ASL | Argininosuccinic aciduria |  NM__00048.4:C.c.392C>T, NM_000048.4:C.4376>A, NM_ _000048.4:c. $446+16>A$, <br>  NM_000048.4:.539TTG, NM_000048.4:c. $544 C$ CT, NM_000048.4:C.557G>A, NM_000048.4:C.C578G>A, NM_000048.4:C.602+16>A, NM_0000048.4:C.857A>G, NM_000048.4:c.9256>A, NM_000048.4: $\mathbf{C}$. 1043 _1055delGGGTCATCTCTAC, <br>  NM_000048.4:C. 1153 CTT, NM__000048.4:C. 1255 _1256delCT, NM_000048.4:C.:1366_13677insG, NM_000048.4:C.1366C>T |
| 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. $693 C$ CA, NM_000049.4:c. 8388 C $>$ T, NM_000049.4:C. $854 A>C$, NM_000049.4:C.863A>G, NM_000049.4:c.914C>A |
| ASS1 | Citrullinemia type I |  <br>  <br>  <br>  NM_054012.4:C.5.571G>A, NM_054012.4:C.C.7876>A, NM_054012.4:C. $793 C>T$, <br>  <br>  <br>  |

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## PATIENT 3.1

GENE DISEASE NAME $\quad$ VAR NAME

|  |  | NM_054012.4:c.970+5G>A, NM_054012.4:c.1085G>T, NM_054012.4:c.1087C>T, NM_054012.4:c.1088G>A, NM_054012.4:c.1168G>A, NM_054012.4:c.1194-1G>C |
| :---: | :---: | :---: |
| ATP7A | 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. $3931 \mathrm{~A}>\mathrm{G}$ |
| ATP7B | Wilson disease |  |
| 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.979G>A, NM_000709.4:c.1036C>T, NM_000709.4:c. $1037 \mathrm{G}>\mathrm{A}, \mathrm{NM}$ _000709.4:c.1234G>A |
| BCKDHB | Maple syrup urine disease, type lb | NM_183050.4:c.302G>A, NM_183050.4:c.342T>G, NM_183050.4:c.344-1G>A, NM_183050.4:c.356T>G, NM_183050.4:c.479T>G, NM_183050.4:c.488A>T, NM_183050.4:C.508C>A, NM_183050.4:C.508C>G, NM_183050.4:c.508C>T, NM_183050.4:c.509G>A, NM_183050.4:C.526A>T, NM_183050.4:c.547C>T, NM_183050.4:c.799C>T, NM_183050.4:c.832G>A, NM_183050.4:c.952-1G>A, NM_183050.4:c.970C>T, NM_183050.4:c.1046G>A, NM_183050.4:c.1114G>T |
| 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.166C>T, NM_001079866.2:C.:232A>G, NM_001079866.2:c.547C>T, NM_001079866.2:C.548G>A, NM_001079866.2:C..550C>T, NM_001079866.2:c.696delT, NM_001079866.2:c..830G>A, NM_001079866.2:c.1057G>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, <br>  |
| 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, <br>  |
| BTD | Biotinidase Deficiency |  |
| CAPN3 | Muscular dystrophy, limbgirdle, autosomal recessive 1 | NM_000070.3:c. $133 \mathrm{G}>\mathrm{A}, \mathrm{NM}$ _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.5499delA, NM_000070.3:c.551C>T, NM_000070.3:c.580delT, <br> NM_000070.3:c. 597 _611delGTTCTGGAGTGCTCT, NM 000070.3:c. $662 \mathrm{G}>$ T, <br> NM_000070.3:c.676G>A, NM_000070.3:c.8553_854insAGTTGATTGC, <br> NM_000070.3:c.956C>T, NM_000070.3:..1319delG, NM_000070.3: C. $1466 \mathrm{G}>\mathrm{A}$, <br> NM_000070.3:c.1468C>T, NM_000070.3:c.1469G>A, NM_000070.3:C.1599_1602delGAGC, <br> NM_000070.3: :..1610A>G, NM_000070.3:c.1715G>A, <br> NM_000070.3:c.:1743_1745+1delTGAG, NM_000070.3:c.1788_1789insA, <br> NM_000070.3:c. 1837 delA, NM_000070.3:c.2120A>G, NM_000070.3:C. $22122 \mathrm{C}>$ T, <br> NM_000070.3:c.2243G>A, NM_000070.3:c.2248_2249insCAGT, NM_000070.3:c.2257G>A, <br> NM_000070.3:C.23066>A, NM_000070.3:c.2362_2363delAGinsTCATCT, <br> NM 000070.3:c. 2362 2363delAGinsTCATCT |
| CBS | Homocystinuria |  <br>  <br>  <br>  NM_000071.3:C.:9046>A, NM_-000071.3:C.7976>A, NM_000071.3:C.C572C>T, NM_000071.3:C.5266>T, NM_000071.3:C.5026 2 AA, NM_000071.3:C.C.415G>A, <br>  NM_000071.3:c.325T>C, NM_000071.3:c.304A>C, NM_000071.3:c.162G>A, |

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GENE DISEASE NAME $\quad$ VAR NAME

| CDH23 | Deafness, autosomal recessive $12$ | NM_022124.6:c.146-2A>G, NM_022124.6:c.189delC, NM_022124.6:c. $288+1 \mathrm{G}>\mathrm{A}$, NM_022124.6:c. 902 G>A, NM_022124.6:c. $1858+2 T>G$, NM_022124.6:c. $3141 \mathrm{C}>A$, NM_022124.6:c.3293A>G, NM_022124.6:c.3515_3518delCATC, <br> NM_022124.6:c.3579+2T>C, NM_022124.6:c.4504C>T, NM_022124.6:c.5237G>A, NM_022124.6:c.5663T>C, NM_022124.6:c.6050-9G>A, NM_022124.6:c.6392delC, NM_022124.6:c.6442G>A, NM_022124.6:c. $7660 \mathrm{G}>\mathrm{A}, \mathrm{NM} \_022124.6$ :c. $7823 \mathrm{G}>\mathrm{A}$ NM 022124.6:c. $9319+1$ _9319+4delGTAA, NM 022124.6:c. $9565 \mathrm{C}>$ T |
| :---: | :---: | :---: |
| CEP290 | Ciliopathy | 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.c.4723A>T, NM_025114.4:c. $4705-1 G>$ T, NM_025114.4:c.4656delA, NM_025114.4:c.4393C>T, NM_025114.4: :c.3185delT, NM_025114.4:C.2249T>G, NM_025114.4: :c.1681C>T, NM_025114.4:C.1665_1666de\|AA, NM_025114.4:C.1501G>T, NM_025114.4:c.613C>T, NM_025114.4:C.384_387delTAGA, NM_025114.4:C.c.164_167delCTCA, NM_025114.4:C.21G>T |
| CERKL | Retinitis pigmentosa 26 | NM_201548.5: :c.1553_1569dupTTATCAGTCTTTATGGA, NM_201548.5:c. 1012 C $>$ T, NM_201548.5: c. $847 \mathrm{C}>$ T, NM_201548.5:c.780delT, NM_201548.5:c.769C>T, NM_201548.5:c.312delA |
| CFTR | Cystic fibrosis | Mo |

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PATIENT 3.1

GENE DISEASE NAME VAR NAME


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## PATIENT 3.1

GENE DISEASE NAME $\quad$ VAR NAME

|  |  |  |
| :---: | :---: | :---: |
| CLN3 | Neuronal ceroid-lipofuscinosis | NM_001042432.2:c.1272delG, NM_001042432.2:c.1210C>A, NM_001042432.2:c.c.883G>A, NM_001042432.2:c. 622 dupT, NM_001042432.2:c. $597 C>A$ |
| 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.377T>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.473G>C, NM_006493.4:c.521_522insC, NM_006493.4:c.688G>A, NM_006493.4: c. 771 delA , NM_006493.4:c.775_776delAT, NM_006493.4:c.803_818delATCTGGGAAATGAAAC, 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.200T>C, NM_017882.3:c.139C>T |

## GENESeeker

List of variants analysed for the Geneseeker panel version 3.1, however, only variants classified as pathogenic and likely pathogenic at the time of analysis are reported.

## PATIENT 3.1

| GENE | DISEASE NAME | VAR NAME |
| :---: | :---: | :---: |
| CLN8 | Ceroid Lipofuscinosis, Neuronal, 8 (a.ka. Northern Epilepsy) | NM_018941.4:c.88delG, NM_018941.4:c.88G>C, NM_018941.4:C.610C>T, NM_018941.4:c.789G>C |
| CLRN1 | Usher syndrome, type 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/Macular degeneration, juvenile |  <br> NM_019098.5:c. 1405 T>G, NM_019098.5:c.c.1208G>A, NM_019098.5:c. $1148 d \mathrm{delC}$ <br> NM_019098.5:. 1063 C工T, NM_019098.5:. 8933 _897delCAAAA, <br> NM_019098.5:c.887_896delCTTCTACAAA, NM_019098.5:. .886 _890delACTTC <br> NM 019098.5:c.8.819_826delCAGACTCC, NM_019098.5: ©. 446_447insT |
| COL4A3 | Alport syndrome |  NM_000091.5:c.4411_4415delІTTTC, NM_000091.5:c.4421T>C, NM_000091.5:c.4441C>T, NM_000091.5:c.4484A>G, NM_000091.5:c.4571C>G, NM_000091.5:c.5002_*6delAAAAGACACTGAAGCTAA |
| COL4A4 | Alport Syndrome, COL4A4Related |  NM_000092.5:c. $3601 G>A$, NM_000092.5: $:$ c.2312delG, NM_000092.5: $5 . .71+16>A$ |
| COL7A1 | Dystrophic Epidermolysis Bullosa, COL7A1-Related |  <br>  NM_O000944.4:c.79126דT, NM_000094.4:C.C.7400+4delC, NM_000094.4:C.7.7411CDT, <br>  <br>  <br>  NM_000094.4:C.60916>A, NM_000094.4:C.C5821-1G>A, NM_0000994.4:C.5532+16>A, NM_000094.4:C.5443G>C, NM_0000994.4:C.52877CT, NM__000994.4:C.50966>T, <br>  <br>  <br>  <br>  NM -000094.4: :C.336C>C, NM- |
| CPS1 | Carbamoylphosphate synthetase I deficiency |  NM_001875.5: c . 3555 del A |
| CPT1A | Carnitine palmitoyltransferase deficiency, hepatic, type IA | NM_001876.4:c.1538C>T, NM_001876.4:c.1493A>G, NM_001876.4:C.1436C>T, <br>  NM_001876.4:C.1216C>T, NM_001876.4:C.1079A>G, NM_001877.4:C.C.335_336delCC, NM 001876.4:C.2988CDT, NM 001876.4:C.281+1G>A, NM 001876.4:C.C.222C>A |
| CPT2 | Carnitine palmitoyltransferase deficiency, hepatic, type II, infantile,lethal neonathal | NM_000098.3:c.149C>A, NM_000098.3:c.338C>T, NM_000098.3:c. $359 \mathrm{~A}>\mathrm{G}$, 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. $638 A>G$, NM_000098.3:c. 680 C>T, NM_000098.3:c.723_724delAC, NM_000098.3:c.886C>T, NM_000098.3:c.1148T>A, NM_000098.3:c.1238_1239delAG, NM_000098.3:c.1237C>T, NM_000098.3:c.1369A>T, NM_000098.3:c.1437C>G, NM_000098.3:c.1763C>G, NM_000098.3:c.1782delC, NM_000098.3:c.1883A>C, NM_000098.3:c.1891C>T |
| CRB1 | Leber congenital amaurosis 8 | NM_201253.3:c.484G>A, NM_201253.3:c.493_501delGATGGAATT, <br> NM_201253.3:c.610_616delGAAATAG, NM_201253.3:c.936T>G, NM 201253.3:c.2290C>T, <br> NM_201253.3:c.2401A>T, NM_201253.3:c.2416G>T, NM_201253.3:c.2688T>A, <br> NM_201253.3:c.2843G>A, NM_201253.3:c.2983G>T, NM_201253.3:c.3053_3054insTTATA, <br> NM_201253.3:c.3094G>A, NM_201253.3:c.3122T>C, NM_201253.3:c.3299T>C, <br> NM_201253.3:c.3299T>G, NM_201253.3:c.3383delT, NM_201253.3:c.3419T>A, <br> NM_201253.3:c.3997G>T |
| CTNS | Cystinosis, nephropathic | NM_004937.3:c.124G>A, NM_004937.3:c.283G>T, NM_004937.3:c. $329 \mathrm{G}>$ T, NM_004937.3:c.357_360delCAGC, NM_004937.3:c._397_398delAT, NM_004937.3: c. $4146>A$, NM_004937.3:c. 416 C>T, NM_004937.3: $c .5066>A$, NM_004937.3:c. $58996>A$, NM_004937.3:c.645_646insA, NM_004937.3:c.853-3C>G NM_004937.3:c.1015G>A |
| CTSD | Ceroid Lipofuscinosis, Neuronal, 10 (CLN10 Disease) | NM_001909.5.:.11496>C, NM_01909.5: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/Hyperandrogenism, nonclassic type due to 21hydroxylase deficiency | NM_000500.9:9:.293-13C/A>G, NM_000500.9:9:.332_3399del, NM_000500.9:c.518T>A, <br>  <br>  Large gene conversion |

## Juno Genetics España

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## GENESeeker

List of variants analysed for the Geneseeker panel version 3.1, however, only variants classified as pathogenic and likely pathogenic at the time of analysis are reported.

## PATIENT 3.1

GENE DISEASE NAME $\quad$ VAR NAME

| DBT | Maple syrup urine disease, type II | 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.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/Severe combined immunodeficiency, 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 Pigmentosum Group E | 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 syndrome | 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. $976 \mathrm{G}>$ T, NM_001360.3:c. $964-1 \mathrm{G}$ >C, NM_001360.3:c.907G>A, NM_001360.3:c.904T>C, NM_001360.3:c. $.866 C>$ T, NM_001360.3:c.841G>A, NM_001360.3:c.839A>G, NM_001360.3:c.832-1G>C, NM_001360.3:c. $744 \mathrm{G}>$ T, NM_001360.3:c. $730 \mathrm{G}>\mathrm{A}, \mathrm{NM}$ _001360.3: C .725 G РA, NM_001360.3:c.724C>T, NM_001360.3:c.682C>T, NM_001360.3:c.506C>T, NM_001360.3:c.c.461C>G, NM_001360.3:c.453G>A, NM_001360.3:c. $452 \mathrm{G}>\mathrm{A}$, NM_001360.3:c.356A>T, NM_001360.3:c.292C>T, NM_001360.3:c. 278 C>T, NM_001360.3:c.151C>T, NM_001360.3:c.1A>G |
| 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: :..913_923delACTTGTGATGT, NM_000108.5:c.1483A>G |
| DMD | Duchenne muscular dystrophy | NM_004006.3:c.10774delA, NM_004006.3:c.10454delT, <br> NM_004006.3:c.10453_10454delCT, NM_004006.3:c.10447_10448delTC, <br> NM_004006.3:c.10141C>T, NM_004006.3:c.10086+1G>A, NM_004006.3:c.10033C>T, <br> NM_004006.3:c.9854_9863delTGAGACTGGA, NM_004006.3:c. 9862 G>T, <br> NM_004006.3:c.9851G>A, NM_004006.3:c.9650-2A>G, NM_004006.3:c.9568C>T, <br> NM_004006.3:c.9564-1G>A, NM_004006.3:c.9380C>G, NM_004006.3:c. $9361+1 \mathrm{G}>\mathrm{C}$, <br> NM_004006.3:c.9361+1G>A, NM_004006.3:c.9346C>T, NM_004006.3:c.9337C>T, <br> NM_004006.3:c.9164-1G>T, NM_004006.3:c.9164-1G>C, NM_004006.3:c.8944C>T, <br> NM_004006.3:c.8713C>T, NM_004006.3:c.8668G>A, NM_004006.3:c.8656C>T, <br> NM_004006.3:c.8652_8653delCT, NM_004006.3:c.8608C>T, NM_004006.3:c.8464C>T, <br> NM_004006.3:c.8443C>T, NM_004006.3:c.8374_8375delAA, NM_004006.3:c.8358G>A, <br> NM_004006.3:c.8086delC, NM_004006.3:c.8069T>G, NM_004006.3:c.8064_8065delTA, <br> NM_004006.3:c.7922delA, NM_004006.3:c.7894C>T, NM_004006.3:c.7771G>T, <br> NM_004006.3:c.7764dupT, NM_004006.3:c.7683G>A, NM_004006.3:c.7682G>A, <br> NM_004006.3:c.6986dupA, NM_004006.3:c.6982A>T, NM_004006.3:c.6964delG, <br> NM_004006.3:c.6943G>T, NM_004006.3:c.6936delA, NM_004006.3:c.6906G>A, <br> NM_004006.3:c.6834deIT, NM_004006.3:c.6763-2A>G, NM_004006.3:c.6391_6392dupCA, <br> NM_004006.3:c.6391_6392delCA, NM_004006.3:c.6373C>T, NM_004006.3:c.6340A>T, <br> NM_004006.3:c.6292C>T, NM_004006.3:c.6238delC, NM_004006.3:c.6226G>T, <br> NM_004006.3:c.6182delC, NM_004006.3:c.6014_6017delCTCA, NM_004006.3:c.6000T>A, <br> NM_004006.3:c.5922+3G>C, NM_004006.3:c.5899C>T, NM_004006.3:c.5807T>A, <br> NM_004006.3:c.5773G>T, NM_004006.3:c.5697delA, NM_004006.3:c.5671A>T, <br> NM_004006.3:c.5640T>A, NM_004006.3:c.5570_5571dupAA, NM_004006.3:c.5554C>T, <br> NM_004006.3:c.5530C>T, NM_004006.3:c.5363C>G, NM_004006.3:c.5353C>T, <br> NM_004006.3:c.5313dupT, NM_004006.3:c.5287C>T, NM_004006.3:c.4843A>T, <br> NM_004006.3:c.4806A>T, NM_004006.3:c.4735G>T, NM_004006.3:c.4518+5G>A, <br> NM_004006.3:c.4500delA, NM_004006.3:c.4486delG, NM_004006.3:c.4471_4472delAA, <br> NM_004006.3:c.4409_4412dupGTCT, NM_004006.3:c.4405C>T, NM_004006.3:c.4375C>T, <br> NM_004006.3:c.4117C>T, NM_004006.3:c.4071G>C, NM_004006.3:c.3779_3783deICTTTG, <br> NM_004006.3:c.3747delG, NM_004006.3:c.3697delC, NM_004006.3:c.3639dupA, <br> NM_004006.3:c.3432+3A>G, NM_004006.3:c.3432+1G>A, NM_004006.3:c.3295C>T, <br> NM_004006.3:c.3276+1G>A, NM_004006.3:c.3246_3247insTTTCTAAAAA, <br> NM_004006.3:c.3124A>T, NM_004006.3:c.3121C>T, NM_004006.3:c.3087G>A, <br> NM_004006.3:c.3076G>T, NM_004006.3:c.3022A>T, NM_004006.3:c.2929dupC, <br> NM_004006.3:c.2866C>T, NM_004006.3:c.2815_2816delTT, NM_004006.3:c.2816T>A, <br> NM_004006.3:c.2804-1G>A, NM_004006.3:c.2804-2A>T, NM_004006.3:c.2803+1G>T, <br> NM_004006.3:c.2803+1G>A, NM_004006.3:c.2758C>T, NM_004006.3:c.2755A>T, <br> NM_004006.3:c.2650C>T, NM_004006.3:c.2547delT, NM_004006.3:c.2523delA, <br> NM_004006.3:c.2484T>G, NM_004006.3:c.2482T>G, NM_004006.3:c.2479delG, <br> NM_004006.3:c.2380+2T>C, NM_004006.3:c.2380+1G>C, NM_004006.3:c.2332C>T, <br> NM_004006.3:c.2302C>T, NM_004006.3:c.2294_2297deICCAT, <br> NM_004006.3:c.2281_2285delGAAAA, NM_004006.3:c.2169-3deIT, <br> NM_004006.3:c.2137C>T, NM_004006.3:c.2125delC, <br> NM_004006.3:c.1900_1903dupAAGT, NM_004006.3:c.1900A>T, NM_004006.3:c.1886C>A, NM_004006.3:c.1734delA, NM_004006.3:c.1529_1530delTC, NM_004006.3:c.1489C>T, NM_004006.3:c.1371delG, NM_004006.3:c.1341_1342dupAG, NM_004006.3:c.13329A>G, NM_004006.3:c.1306dupG, NM_004006.3:c.1286C>A, NM_004006.3:c.1261C>T, NM_004006.3:c.1070delC, NM_004006.3:c.1048G>T, NM_004006.3:c.1012G>T, |

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## GENESeeker

List of variants analysed for the Geneseeker panel version 3.1, however, only variants classified as pathogenic and likely pathogenic at the time of analysis are reported.

## PATIENT 3.1

| GENE | DISEASE NAME | VAR NAME |
| :---: | :---: | :---: |


|  |  | NM_004006.3:c.676_678deIAAG, 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..433C>T, NM_004006.3:c.412_413delAA, NM_004006.3.c..220delC, NM_004006.3:c.:204dupC, NM_004006.3:c.199G>T, NM_004006.3:c.160_162delCTC, NM_004006.3:c..137_138dupAT, NM_004006.3:c.137A>T, NM_004006.3:С..133C>T, CNV deletions/ duplications |
| :---: | :---: | :---: |
| DPYD | Dihydropyrimidine Dehydrogenase Deficiency | 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, limbgirdle, type 2B | NM_001130987.2:c.203_204delTGinsAT, NM_001130987.2:c.289A NM_001130987.2:c.394_395deICC, NM_001130987.2:c.547C $\times$, <br> NM_001130987.2:c.605C>A, NM_001130987.2:c.661C>G, NM_001130987.2:c.706C>T, <br> NM_001130987.2: :c.759+1G>C, NM_001130987.2:c.797G>A, NM_001130987.2:c.853C $>$ T, <br> NM_001130987.2:C.991G>A, NM_001130987.2:C.991G>T, NM_001130987.2:C.1033+1G>A <br> NM_001130987.2:c. $1149+1 \mathrm{G} \times \mathrm{A}, \mathrm{NM}$ _0011309887.2:c. $1216 \mathrm{G}>\mathrm{C}$, <br> NM_001130987.2:c.1312T>C, NM_001130987.2:c.1372G>A, <br> NM_001130987.2:C. 1380+2TXC, NM_001130987.2:C.1464C>A, <br> NM_001130987.2:c.1487_1488insA, NM_001130987.2:c.1494-2A>G, <br> NM_001130987.2:c. $1494-1 G>A$, NM_003494.4:c. $1481-1 G>A$, <br> NM_001130987.2:C.1609G>A, NM_001130987.2:c..1674delA, <br> NM_00113098.7.2:c.1692+2T PA, NM_01130987.2:C.1717C>T, NM_-001130987.:C.1867C>T, NM_-001130987.2:C.1888C>T, NM_001130987.2:c.1915G>C, <br> NM_001130987.2:c.1927G>T, NM_001130987.2:C.:2921_2925delACCAG, <br> NM_001130987.2:c.2923C>T, NM_001130987.2:c.3020C>T, NM_001130987.2:c.3051G>T, <br> NM_001130987.2:c. $\mathbf{C}$ 3095A>G, NM_001130987.2:C. $3119 G \subset A$, , NM_001130987.2:C. $3166 C \subset T$, <br>  <br> NM_001130987.2:c..3235_3236insAGGCGG, NM_001130987.2:c. 34998 _3499delTGinsAA, <br> NM_001130987.2:C. 3 2531C $>$ A, NM_001130987.2:C.3532C>T, NM_001130987.2:c.3694delC, <br> NM_001130987.2:C.C.3762delA, NM_001130987.2:C. 37788 C TT, NM_001130987.2:C.3859G>T, <br> NM_001130987.2:C. $3913 A>T$, NM_001130987.2:C. $.3946 A>G$, <br> NM_001130987.2: :C. 3957delG, NM_001130987.2:c. $\mathbf{C}$.4011delC, <br> NM_001130987.2:C. $\mathbf{C}$.0399C>G, NM_-001130987.2:C.4057G>A, NM_001130987.2:C.4144C>T, <br> NM_001130987.2:C.4159_4160delīG, NM_001130987.2:c.4253C>A, <br> NM_001130987.2:C.c4307G>A, NM_001130987.2:C.4873C>T, NM_001130987.2:C.5102C>T, <br> NM_001130987.2:c.5194C>T, NM_001130987.2:c.5318A>G, NM_001130987.2:C.5383C>T, <br> NM_001130987.2:C.5458-2AAC, NM_001130987.2:C.5546G 5 AA, <br> NM_001130987.2:C.5546+1G>T, NM_0011309887.2:C.5614G>T, <br> NM__001130987.2:C. 5710 del G, NM_001130987.2:C. 5761 Cl , $\mathrm{T}^{2}$, <br> NM_001130987.2:C. 5812 _5813delGA, NM_001130987.2:C. $5830 \mathrm{C}>$ T, <br> NM_001130987.2:C.5952_5955delCCAG, NM_001130987.2:c.6095_6096insA, <br> NM_001130987.2:c.6109G>T, NM_001130987.2:c.6115C>T, NM_001130987.2:c.6116G>A, <br> NM_001130987.2:c.6241C>T, NM_001130987.2:c.6320C>T, NM_001130987.2:c.4993delG |
| EDA | Ectodermal dysplasia 1, hypohidrotic, X-linked |  NM_001399.5:c.206G>T, NM_001399.5:c.463C>T, NM_001399.5:c.466C>T, NM_001399.5:c.467G>A, NM_001399.5:c.573_574insT, NM_001399.5: $:$ c. $671 \mathrm{G}>\mathrm{C}$, NM 001399.5.c. $826 \subset>$ T, NM 001399.5 :c.c. $1045 G>A$ |
| EIF2AK3 | Wolcott-Rallison Syndrome | NM_004836.7.7.1763G>A, NM_004836.7.7.99946>T |
| EMD | Emery-Dreifuss Muscular Dystrophy 1, X-Linked | NM_000117.3:C.547C>A, NM_000117.3:.6.630_634delCCGTG |
| ERCC2 | Xeroderma Pigmentosum Group D | NM_000400.4:c.2230_2233dupCTAG, NM_000400.4:c.2176C>T, NM_000400.4:c.2047C>T, NM_000400.4:c.1972C>T, NM_000400.4:c.1703_1704delTT, NM_000400.4:c.1621A>C 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. $183+2 T>A$ |
| ERCC3 | Xeroderma Pigmentosum 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 Pigmentosum Group F | NM_005236.3:c.2T>C, NM_005236.3:c.49G>T, NM_005236.3:..538_539delAG, NM_005236.3:c.706T>C, NM_005236.3:c.1461_1462insA, <br> NM_005236.3:c.:2280_2283delGTTT, NM_005236.3:c.2395C>T |
| ERCC5 | Xeroderma pigmentosum, group G/Cockayne syndrome | NM_000123.4:c.88+2T>C, NM_000123.4:c.215C>A, NM_000123.4:c.381-2A>G, NM_000123.4:C.406C>T, NM_000123.4:c.c.463_464insA, NM_000123.4:c.526C>T, NM_000123.4:C.787C>T, NM_000123.4:C.2143_2144insA, NM_000123.4:C.23375C>T, NM 000123.4:c.2573T>C, NM 000123.4:c.2620G>A, NM 000123.4:c. 2743 delA |
| 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. $1357 C>$ T, NM_000124.4:C.422+1G>A, NM 000124.4:c.207dupG, NM_000124.4:c.48_49delCT |

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List of variants analysed for the Geneseeker panel version 3.1, however, only variants classified as pathogenic and likely pathogenic at the time of analysis are reported.

## PATIENT 3.1

GENE DISEASE NAME $\quad$ 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.376>T |
| :---: | :---: | :---: |
| ESCO2 | Roberts Syndrome | NM_001017420.3:C.291_292ins6A, NM_001017420.3:C.:306_307delAA, <br>  NM_001017420.3: :c.874_-877delGACA, NM_001017420.3: C :877_878delAG, NM_001017420.3:c. $12696 \mathrm{G}>\mathrm{A}$, , NM_001017420.3: $\mathrm{c} .1596 \_$_1597insT, NM_001017420.3:C.1615T>6 |
| ETFA | Glutaric acidemia IIA | NM_000126.4:C.797C>T, NM_000126.4:C.470T>6 |
| ETFB | Glutaric Acidemia, Type 2B | NM_001985.3:c.6.614_616delAGA, NM_001985.3:c.491G>A, NM_001985.3:c.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 IIC | NM_004453.4:c.2T>C, NM_004453.4:c. 250G>A, NM_004453.4:c.413T>G, <br> NM_004453.4:c.508G>T, NM_004453.4:c.524G>T, NM_004453.4:c.643G>A, <br> NM_004453.4:C. 1001T>C, NM_004453.4:C. 1234G $>$ T, NM_004453.4:c.1351G>C, <br> NM_004453.4: :c.1367C>T, NM_004453.4:c.1568_1569delCT, <br> NM_004453.4:c.c.1773_1774delAT, NM_004453.4:c.1822delG, NM_004453.4:c.1832G>A |
| ETHE1 | Ethylmalonic Encephalopathy | NM_014297.5:c.604dupG, NM_014297.5:c.554T>G, NM_014297.5:c.488G>A, NM_014297.5:c.487C>T, NM_014297.5:c.440_450delACAGCATGGCC, NM_014297.5:c.221dupA |
| EYS | Retinitis pigmentosa 25 | NM_001142800.2: :c.9405T>A, NM_001142800.2:C..9299_9302delCTCA, NM_001142800.2:c.c.9036delT, NM_001142800.2:c. 88346 ©A, <br> NM_001142800.2:C. 86488 _8655delCATGCAGA, NM_001142800.2:c.8629_8632dupACAG, <br> NM_001142800.2:c. 8569 G>T, NM_001142800.2:C. $.8408 d u p A$, <br> NM_001142800.2:C. .7822C>T, NM_001142800.2:c..7095T>G, NM_001142800.2:c.6170delA, <br> NM_001142800.2:C.6102dupT, NM_001142800.2:C.5928-2A>G, <br> NM_001142800.2:c.5857G>T, NM_001142800.2:C.5.5757dupT, <br> NM_001142800.2:c. $5044 \mathrm{C} \times$ T, NM_001142800.2:c.4597_4613delTCAAGCAACCAGAGACT, <br> NM_001142800.2:c. 4462 _4469duPAGCCCCTC, <br> NM_001142800.2:c.4350_4356delTATAGCT, NM_001142800.2:C.4120C>T, <br> NM_001142800.2:c.4045C>T, NM_001142800.2:с.3329C>G, <br> NM_001142800.2:C.2826_2827delAT, NM_001142800.2:C.1211dupA, <br> NM_001142800.2:c.863-4_863-3insT, NM_001142800.2:c.:571dupA, <br> NM_001142800.2:c.490C>T, NM_001142800.2:c.232delT, 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.595+3A>G, NM_000128.4:c.731A>G, NM_000128.4:c.809A NM_000128.4: c. 901 T>C, NM_000128.4:c.1211C>A, NM_000128.4:C. $1613 C>$ T, NM 000128.4:c.1693G>A |
| F8 | Hemophilia A |  NM_000132.4:C.7021G>T, NM_000132.4:c.7016G>T, NM_000132.4:c.7012delC, NM_000132.4:c.6996G>A, NM_000132.:c.c.6995G>C, NM_000132.4:C.6988delC, NM_000132.4:c.6986C>T, NM_000132.4:c.6969_6977delCTACCTTCG, <br> NM_000132.4:c. 6976 CCG, NM_000132.4:c. 6921 delC, NM_000132.4:C. 6919 _6920delGA, NM_000132.4:C.6914_6918delêATCAA, NM_000132.4:c..6915delT, <br> NM_000132.4:C.69955T>C, NM_000132.4:C.6904T>G, NM_000132.4:C.69001-2A>G, NM_000132.4:C. $6900+16>A$, NM_000132.4:c. 6887 delA , NM_000132.4:c. $6870 \mathrm{G}>\mathrm{A}$, <br> NM_000132.4:C.6869G>T, NM_000132.4:c.6857_6867delATGGCCATCAG, <br>  <br> NM_000132.4:C.6836T>G, NM_-000132.4:C.C8336T>C, NM_000132.4:c.c.6827T>G, NM_000132.4:c.6825T>A, NM_000132.4:c.6797delG, NM_000132.4:c.6797G>A, <br> NM_000132.4:c.6796G>A, NM_000132.4:c.6780_6788delAGGAGTAAC, <br> NM_000132.4:C. 6786 _6787insCAA, NM_000132.4:C. 6760 delC, NM_000132.4:C. $6760 \mathrm{C}>$ T, NM_000132.4:c.6752T>A, NM_000132.4:c.6746T>G, NM_000132.4.:C.6743G>C, <br> NM_000132.4:c.6740_6741delAG, NM_000132.4:C. $6739 G>T$, NM_000132.4:c. 6738 delA , NM_000132.4:c. $6574+5 G>C$, NM_000132.4:c.6574+3A>C, NM_000132.4.c. $6574+1 G>$ T, <br> NM_O00132.4:c.6574+1G>A, NM_000132.4:c.6565_6566delGA, NM_000132.4:c. $6551 A>T$, <br> NM_000132.4:c.6548T>G, NM_000132.4:c.6544C>G, NM_000132.4:c. $6537 C>G$ <br> NM_000132.4:C.C6533G>A, NM_000132.4:C.6520C>G, NM_000132.4.:..6517_6519dupACT, <br> NM_000132.4:C.6515C>G, NM_000132.4:c.6501delC, NM_000132.4:c.6497delG, <br> NN_000132.4:C.6494delC, NM_000132.4:c.6488T>G, NM_000132.4:c.6482C>T, <br> NM_000132.4:c.6482C>A, NM_000132.4:c.6477delT, NM_000132.4:c.6469_6470delAA, <br> NM_000132.4:c.6468_6469delCA, NM_000132.4:c.6465delA, <br> NM_000132.4:C.6464_6465delAA, NM_000132.4:C. .6449A <br> NM_000132.4:c. $6273+1 G>A$, NM_000132.4:C. $6269 T>A$, , NM_000132.4:C. $62633 C>$ T, <br>  <br> NM_000132.4:C.6242G>C, NM_-000132.4:c.6239C>T, NM_-000132.4:c.6213A>T, <br> NM_000132.4:c.6194G>A, NM_O00132.4:c.c.6136dupA, <br> NM_000132.4:C.6120_6135deITCAGACTCCCCTGGGA, NM_000132.4:c.6134G $>$ T, <br> NM_000132.4:C.6130delC, NM_000132.4:c.6120T>A, NM_000132.4:c.6116_6117delAG, <br> NM_000132.4:c. $6115+3 G>T$, NM_000132.4:c. $6115+2 T>C$, NM_-000132.4.:c. $6115+16>A$, <br> NM_000132.4:C.6107A>G, NM_000132.4:C.6099delT, NM_000132.4:C.6094C>T, <br> NM_000132.4: c. $6089 d u p G$, NM_000132.4:c.c.6084delG, NM_000132.4:c.6078_6079deltG, <br> NM_000132.4:C. 6070 dupC, NM_000132.4:C. $6046 \mathrm{C}>\mathrm{G}$, NM_000132.4:c. $6037 \mathrm{G}>\mathrm{A}$, <br> NM_000132.4:C.6016G>T, NM_000132.4:c.5999GC>C, <br> NM 000132.4c.c. 5964 _5967dupGGAG, NM 000132.4:c. 5960 _9661delAA |

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List of variants analysed for the Geneseeker panel version 3.1, however, only variants classified as pathogenic and likely pathogenic at the time of analysis are reported.

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GENE DISEASE NAME $\quad$ VAR NAME


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| GENE | DISEASE NAME | VAR NAME |
| :---: | :---: | :---: |


|  |  | NM_000132.4:c.98G>A, NM_000132.4:c.97T>G, NM_000132.4:c. $88 \mathrm{G}>\mathrm{A}$, 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. $1136 \mathrm{G}>\mathrm{A}$, NM_000133.4:c. $1150 \mathrm{C}>$ 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.1027G>T, NM_000137.4:c.1062+5G>A, NM_000137.4:c.1069G>T, NM_000137.4:C.c.1090G>T, NM_000137.4:c.1141A>G |
| FANCA | Fanconi anemia, complementation group A | 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, <br> NM_000135.4:c.1115_1118delTTGG, NM_000135.4:c.:233_236delTTGA |
| FANCC | Fanconi anemia, complementation group C | 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..996+1G>T, NM_000136.3:c.416G>A, NM_000136.3:c. 67 delG, NM_000136.3:c.37C>T |
| FANCG | Fanconi anemia, complementation group G | 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_908dupCT, NM_004629.2:c.637_643delTACCGCC, NM_004629.2:c.510+1G>A, NM_004629.2:C..313G>T |
| 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.1067T>A, NM_000143.4.c.901dupA, NM_000143.4:c.793G>A, 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 dystrophydystroglycanopathy (limbgirdle), type C, 5 | NM_024301.5:c.160C>T, NM_024301.5:c.235G>A, NM_024301.5:c. $1154 C>A$, NM_024301.5:c.1343C>T, NM_024301.5:c.1387A>G |
| FKTN | Muscular dystrophydystroglycanopathy (congenital with brain and eye anomalies), type A, 4 | NM_001079802.2:c.411C>A, NM_001079802.2:c.509C>A, NM_001079802.2:c.1112A>G |
| FMR1 | Fragile $X$ syndrome | Premutation allele (CGG)n |
| $\begin{aligned} & \text { G6PC1/ } \\ & \text { G6PC } \end{aligned}$ | Glycogen storage disease la (von Gierke disease) | 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. $370 \mathrm{G}>\mathrm{A}$, , 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. $.551 \mathrm{G}>\mathrm{A}$, 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 disease II (Pompe disease) | NM_000152.5:c.118C>T, NM_000152.5:c..307T>G, NM_000152.5:c. 525 delT, NM_000152.5:c. $546 \_546+3$ delGGTG, NM_000152.5:c.546G>A, NM_000152.5:c.546G>C, <br>  NM_000152.5:c.767_768insT, NM_000152.5:c.853C>T, NM_000152.5:c.877G>A, NM_000152.5:c.925G/>A, NM_000152.5:c. 953 T>C, NM_000152.5: c. $1064 \mathrm{~T}>\mathrm{C}$, NM_000152.5:c. $1115 A>T$, NM_000152.5: :c.1316T>A, NM_000152.5: :c. 1327-2A>G, NM_000152.5:c.c.1407_1409delCAA, NM_000152.5:c.1430delT, NM_000152.5:c.1445C>T, <br>  NM_000152.5: :c.1561G>A, NM_000152.5:c.1585_1586delTCinsGT, NM_000152.5:c. 1634 C>T, NM_000152.5:c.1644_1645insG, NM_000152.5:c.1799G>A, NM_000152.5:c.1827_1828insA, NM_000152.5:c. 1846_1847insA, NM_000152.5:c. $1912 \mathrm{G}>$ T, NM_000152.5:c. $1927 \mathrm{G}>\mathrm{A}, \mathrm{NM}$ _000152.5:c. $1933 \mathrm{G}>\mathrm{T}$, NM_000152.5:c. $1935 \mathrm{C}>\mathrm{A}$, NM_000152.5:c. $2012 \mathrm{~T}>\mathrm{G}, \mathrm{NM}$ _000152.5:c. $2015 \mathrm{G}>\mathrm{A}$, NM_000152.5:c.2041-1G>A, NM_000152.5:c.2063_2064insCGAGC, NM_000152.5:c.2105G>T, NM_000152.5:c.2237G>A, NM_000152.5:c.2238G>A, NM_000152.5:c.2238G>C, NM_000152.5:c.2512C>T, NM_000152.5: c. 2543 delC , NM_000152.5:c.2560C>T |
| GALC | Krabbe disease | NM_000153.4:C.c.2056T>C, NM_000153.4:c.:1964delC, NM_000153.4:c.1814dupA, NM_000153.4:c.1796T>G, NM_000153.4:c.1723_1724insT, NM_000153.4:c.1700A>C, NM_000153.4:c.1695delT, NM_000153.4:c.1592G>A, NM_000153.4:c.1591C>T, NM_000153.4:C.1586C>T, NM_000153.4:C.1543G>A, <br> NM_000153.4:c.1489+2_1489+3delTG, NM_000153.4:c.1488_1489+2delTGGT, NM_000153.4:c.1488_1489delTG, NM_000153.4:c.1472delA, NM_000153.4:c.1161+2T>G, NM_000153.4:c.1153G>T, NM_000153.4:c.1004A>G, NM_000153.4:c..953C>G, |

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## GENESeeker

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GENE DISEASE NAME $\quad$ VAR NAME

|  |  | NM_000153.4:c.658C>T, NM_000153.4:c.655C>T, NM_000153.4:c..628A>T, NM_000153.4:c. $582+1$ G>A, NM_000153.4:c.453G>A, NM_000153.4:c.430delA, NM_000153.4:c.388G>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.113A>C, NM_000155.4:c.118G>T, NM_000155.4:c.130G>A, NM_000155.4:c.132delG, NM_000155.4:c.143G>C, NM_000155.4:c.152G>A, NM_000155.4:c.158G>A, NM_000155.4:c.199C>T, NM_000155.4:c.200G>A, NM_000155.4:c.203A>C, NM_000155.4:c.218_219delCT, NM_000155.4:c.221T>C, NM_000155.4:c.253-2A>G, NM_000155.4:c.265T>G, NM_000155.4:c.287_289delACA, NM_000155.4:c.290A>G, NM_000155.4:c.292G>A, NM_000155.4:c.329-2A>C, NM_000155.4:c.367C>T, NM_000155.4:c.377+7A>C, NM_000155.4:c.386T>C, NM_000155.4:c.400delT, NM_000155.4:c.404C>T, NM_000155.4:c.413C>T, NM_000155.4:c.416T>G, NM_000155.4:c.425T>A, NM_000155.4:c.428C>T, NM_000155.4:c.442C>T, NM_000155.4:c.443G>A, NM_000155.4:c.443G>C, NM_000155.4:C.501_503delGGT, NM_000155.4:C.505C>A, NM_000155.4:C.508-1G>C, NM_000155.4:c. $510 \mathrm{C}>A$, NM_000155.4:c.512T>C, NM_000155.4:c. $547 \mathrm{C}>\mathrm{A}$, NM_000155.4:c.552C>A, NM_000155.4:c.563A>G, NM_000155.4:c.5653_575delCAGGTATGGGCCAG, NM_000155.4:C.568T>C, NM_000155.4:c.580T>C, NM_000155.4:c.584T>C, NM_000155.4:c.596delC, NM_000155.4:c.601C>T, NM_000155.4:c.602G>A, NM_000155.4:c.607G>A, NM_000155.4:c.610C>T, NM_000155.4:c.617A>G, NM_000155.4:c.619C>T, NM_000155.4:c.626A>G, NM_000155.4:c.634C>T, NM_000155.4:c.688-2A>C, NM_000155.4:c.692G>A, NM_000155.4:c.713_722delACTGGTTAGT, NM_000155.4:c.772C>T, <br> NM_000155.4:c.775C>T, NM_000155.4:c.790delC, NM_000155.4:c.790_792delCTAinsTAG, NM_000155.4:c.793C>G, NM_000155.4:c.823C>G, NM_000155.4:C.844C>G, NM_000155.4:c.855G>T, NM_000155.4:c.904+1G>T, NM_000155.4:c.905-2A>G, NM_000155.4:c.907G>A, NM_000155.4:c.939G>A, NM_000155.4:c.947G>A, NM_000155.4:c.957C>A, NM_000155.4:c.985T>C, NM_000155.4:c.997C>G, NM_000155.4:c. $997 C>T$, NM_000155.4:c. $998 G>A$, NM_000155.4:c.1006A>T, NM_000155.4:c.1030C>A, NM_000155.4:c.1048delA, NM_000155.4:c.1049delC, NM_000155.4:c.1138T>C |
| GAMT | Guanidinoacetate methyltransferase deficiency | NM_000156.6:c.590T>C, NM_000156.6:C.506G>A |
| GBE1 | Glycogen storage disease 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 I | 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.442G>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.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.914C>T, NM_000159.4:c.947C>A, 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.1093G>A, NM_000159.4:c.1148G>A, NM_000159.4:c.1168G>C, NM_000159.4:c.1198G>A, NM_000159.4:c.1198_1199insT, NM_000159.4:c.1204C>T, NM_000159.4:c.1244-2A>C, NM_000159.4:c.1247C>T, NM_000159.4:c.1262C>T |
| GENE | Disease name | varname |
| GFM1 | Combined Oxidative Phosphorylation Deficiency 1 | 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 recessive 1 | 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.503A>G, NM_004004.6:c.465T>A, 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.365A>T, NM_004004.6:c.358_360delGAG, NM_004004.6:c.334_335deIAA, NM_004004.6:c.313_326delAAGTTCATCAAGGG, NM_004004.6:c.310_323delAGGAAGTTCATCAA, NM_004004.6:c.299_300delAT, NM_004004.6:c.299A>T, NM_004004.6:c.270dupA, NM_004004.6:c.269dupT, NM_004004.6:c.269T>C, NM_004004.6:c.250G>T, NM_004004.6:c.250G>C, NM_004004.6:c.249C>G, NM_004004.6:c.241C>G, NM_004004.6:c.239A>C, NM_004004.6:c.238C>T, NM_004004.6:c.235delC, NM_004004.6:c.231G>A, NM_004004.6:c.230G>A, NM_004004.6:c.229T>C, NM_004004.6:c.227T>C, NM_004004.6:c.176_191deIGCTGCAAGAACGTGTG, NM_004004.6:c.169C>T, NM_004004.6:c. $139 \mathrm{G}>$ T, NM_004004.6:c.132G>A, NM_004004.6:c.35delG |
| 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 recessive 1 | 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.261dupA, NM_001110219.3:c. 169 C>T, NM_001110219.3:c.14C>T, CNV deletions |

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## GENESeeker

List of variants analysed for the Geneseeker panel version 3.1, however, only variants classified as pathogenic and likely pathogenic at the time of analysis are reported.

## PATIENT 3.1

| GENE | DISEASE NAME | VAR NAME |
| :---: | :---: | :---: |
| GLB1 | GM1 gangliosidosis and mucopolysaccharidosis type IVB | NM_000404.4:c.1733A>G, NM_000404.4:c.1646C>T, NM_000404.4:c.1577dupG, NM_000404.4:C.1549G>T, NM_000404.4:c.1456_1466dupGGTGCATATAT, NM_000404.4:C. 1452C>G, NM_000404.4:c.1445G>A, NM_000404.4:c.1444C>T, NM_000404.4:c.1370G>A, NM_000404.4:C.1369C>T, NM_000404.4:C.1355dupA, NM_000404.4:C. .1325G>A, NM_O00404.4:c.1321G>A, NM_000404.4:C..1313G>A, NM_000404.4:c.1310A>T, NM_000404.4:c.1223A>C, NM_000404.4:c.1174_1175delCT, NM_000404.4:C.1068+1G>T, NM_000404.4:C.1051C>T, NM_000404.4:C. $1004 C>$ T, NM_000404.4:C.947A>G, NM_000404.4:c.901G>A, NM_O00404.4:c.818G>T, NM_000404.4:c.817TTX, NM_000404.4:c..622C>T, NM_000404.4:C.6.602G>A, NM_000404.4:c.601C>T, NM_000404.4:c.591dupT, NM_000404.4:c.457+2T>C, NM_000404.4:c.442C>T, NM_000404.4:c.442C>A, NM_000404.4:C.438_440delTCT, NM_000404.4:C.C.276G>A, NM_000404.4:C.202C>T, NM_000404.4:c. 176 G $>$ A, NM_000404.4: :c.175C>T, NM_000404.4:c. $171 \mathrm{C}>\mathrm{G}, \mathrm{NM}$ _000404.4:c.152T>C, NM_000404.4:c.145C>T |
| GLDC | Glycine encephalopathy (GLDC-related) | NM_000170.3:c.2405C>T, NM_000170.3:C.2284G>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, <br>  NM_000170.3:c.322G $\quad$ T |
| GLE1 | Lethal Congenital Contracture Syndrome 1 | NM_001003722.2:c.898-2A>G, NM_001003722.2:C.1412_1413deIAG, NM_001003722.2:c.1807C>T, NM_001003722.2:c.2051T>C, NM_001003722.2:c.2067_2070delCTTT |
| GNE | Inclusion body myopathy, autosomal recessive |  |
| GNPTAB | Mucolipidosis type II and III | NM_024312.5:c. 3663 delG, NM_024312.5:c. 3 3598G>A, NM_024312.5:c.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. $2896 d e l A$, NM_024312.5:c.2383delG, NM_024312.5:c.c. 1931C>T, NM_024312.5:c.1906dupA, NM_024312.5:c.1759C>T, NM_024312.5:c.11966CTT, NM_024312.5: C . 1000 C $>$ T, NM_024312.5: C. .749dupA, NM_024312.5:c. 732 _733deIAA, NM_024312.5:c.648_651delAGAA, NM_024312.5:c.616_619delACAG, NM_024312.5:c.99delc, NM_024312.5\%c. 25C>T |
| GNS | Mucopolysaccharidosis, Type 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 Hyperoxaluria, 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 amaurosis 1 | NM_000180.4:c.456C>A, NM_000180.4:c.620delC, NM_000180.4:c.c.1694T>C, NM_000180.4:c.2734_2735deltT, NM_000180.4:C.:2945-1delG |
| GUSB | Mucopolysaccharidosis, Type VII | NM_000181.4:c.1881G>T, NM_000181.4:c.1856C>T, NM_000181.4:c.1831C>T, NM_000181.4:c.1730G>T, NM_000181.4:C.1618G>T, NM_000181.4:c.1534G>A, NM_000181.4:c. 1521G>A, NM_000181.4:c.1429C>T, NM_000181.4:c.1338G>A, NM_000181.4:c.1337G>A, NM_000181.4:c.1244+1G>A, NM_000181.4:c.1244C>T, NM_000181.4:C.12222C>T, NM_000181.4:C.1219_1220insC, NM_000181.4:c.1144C>T, NM_000181.4:c.1084G>A, NM_000181.4:c.1065+1G>T, NM_000181.4:c.1061C>T, NM_000181.4:c.1050G>C, NM_000181.4:c.866G>A, NM_000181.4:c.8220_821delAC, NM_000181.4:.6446C>T, NM_000181.4:C.526C>T, NM_000181.4:C.499C>T, NM_000181.4:c.442C>T |
| HADHA | Long-chain 3-hydroxyacyl-CoA dehydrogenase (LCHAD) deficiency | NM_000182.5:c.2146+1G>A, NM_000182.5:c.2132dupC, NM_000182.5:c.2131C>A, NM_000182.5:c.2027G>A, NM_000182.5:c.1918C>T, NM_000182.5:c.1793_1794delAT, <br> NM_000182.5:c. 1678 C $>$ T, NM_000182.5:c.1644delC, <br> NM_000182.5:c.1620+2_1620+6delTAAGG, NM_000182.5:c. $1528 \mathrm{G}>\mathrm{C}$, <br> NM_000182.5:c.1422dupT, NM_000182.5:c.1132C>T, NM_000182.5:c.919-2A>G, <br> NM_000182.5:c.845T>A, NM_000182.5:c.499delA, NM_000182.5:c.274_278delTCATC |
| HADHB | Trifunctional protein deficiency |  |
| HBA1/2 | Thalassemia, alpha | --MED ; -SEA ; --THAI ; - 1.7 ; - $\alpha 4.2$; - $\alpha 20.5$; --FIL |

## GENESeeker

List of variants analysed for the Geneseeker panel version 3.1, however, only variants classified as pathogenic and likely pathogenic at the time of analysis are reported.

## PATIENT 3.1

GENE DISEASE NAME $\quad$ VAR NAME

## HBB

NM_000518.5:c.*110_*114delTAAAA, NM_000518.5:c.*113A>G, NM_000518.5:c.*112A>G, NM_000518.5:c.*110 *111delTA, NM_000518.5:c.*111A>G, NM_000518.5:c.*110T>C, NM_000518.5:c.*6C>G, NM_000518.5:c.440_441dupAC, NM_000518.5:c.440A>T, NM_000518.5:c.440A>C, NM_000518.5:c.439C>G, NM_000518.5:c.438T>A, NM_000518.5:c.437A>G, NM_000518.5:c.436T>C, NM_000518.5:c.436T>A, NM_000518.5:c.435G>C, NM_000518.5:c.431A>C, NM_000518.5:c.428C>A, NM_000518.5:c.421G>A, NM_000518.5:c.415G>C, NM_000518.5:c.410G>A, NM_000518.5:c.404T>A, NM_000518.5:c.397A>G, NM_000518.5:c.380_396deITGCAGGCTGCCTATCAG,
NM_000518.5:c.385_388deIGCTGinsCCACA, NM_000518.5:c.383_385delAGG, NM_000518.5:c.385G>C, NM_000518.5:c.383A>C, NM_000518.5:c.380T>G, NM_000518.5:c.380T>A, NM 000518.5:c. 371 378deICCCCACCA, NM 000518.5:c.370_378delACCCCACCA, NM_000518.5:c.374C>G NM_000518.5:c. $374 \mathrm{C}>\mathrm{A}$, NM 000518.5 :c. $364 \mathrm{G}>$ T, NM $000518.5: c .364 \mathrm{G}>\mathrm{C}$, NM_000518.5:c.364G>A, NM_000518.5:c.363A>C, NM_000518.5:c.353A>G, NM_000518.5:c.347C>A, NM_000518.5:c.343_344delCTinsG, NM_000518.5:c.344T>C, NM_000518.5:c.341T>A, NM_000518.5:c.337T>C, NM_000518.5:c.332T>C, NM_000518.5:c.328delG, NM_000518.5:c.328G>A, NM_000518.5:c.323dupG, NM_000518.5:c.320T>G, NM_000518.5:c.316-1G>T, NM_000518.5:c.316-1G>C NM_000518.5:c.316-1G>A, NM_000518.5:c.316-2A>G, NM_000518.5:c.316-2A>C NM 000518.5:c.316-3C>G, NM 000518.5:c.316-3C>A, NM 000518.5:c.316-7C>G NM 000518.5:c.316-7C>A, NM 000518.5:c.316-14T>G, NM 000518.5:c.316-90A>G NM_000518.5:c.316-106C>T, NM_000518.5:c.316-106C>G, NM_000518.5:c.316-125A>G NM_000518.5:c.316-146T>G, NM_000518.5:c.316-197C>T, NM_000518.5:c.316-238C>T, NM_000518.5:c.315+4_315+5delAG, NM_000518.5:c.315+5G>C,
NM_000518.5:c.315+2delT, NM_000518.5:c.315+1delG, NM_000518.5:c.315+2T>G, NM_000518.5:c.315+2T>C, NM_000518.5:c.315+2T>A, NM_000518.5:c.315+1G>T, NM_000518.5:c.315+1G>C, NM_000518.5:c.315+1G>A, NM_000518.5:c.315G>C, NM_000518.5:c.312C>G, NM_000518.5:c.306G>C, NM_000518.5:c.305A>G NM 000518.5:c.304G>A, NM_000518.5:c.302C>T, NM 000518.5:c.300_301insTCTGAGAA NM_000518.5:c.299A>T, NM_000518.5:c.299A>G, NM_000518.5:c.299A $>$ C, NM 000518.5:c.298G>T, NM_000518.5:c.298G>C, NM_000518.5:c.298G>A NM_000518.5:c.292_295dupCACG, NM_000518.5:c.295G>A, NM_000518.5:c.293A>T, NM_000518.5:c.287dupA, NM_000518.5:c.286A>G, NM_000518.5:c.282_283dupTG, NM_000518.5:c.283G>C, NM_000518.5:c.277C>T, NM_000518.5:c.277C>A, NM_000518.5:c.275T>C, NM_000518.5:c.271G>T, NM_000518.5:c.271G>A, NM_000518.5:c.269G>A, NM_000518.5:c.268A>C
NM_000518.5:c.244_265delCTCAAGGGCACCTTTGCCACAC, NM_000518.5:c.266T>C NM 000518.5:c.263C>T, NM 000518.5:c.258dupT, NM 000518.5:c.257T>C NM 000518.5:c.253delA, NM 000518.5:c.251deIG, NM 000518.5:c.249G>C NM 000518.5:c.248A>T, NM 000518.5:c.248A>C, NM 000518.5:c.247A>G, NM_000518.5:c.246C>A, NM_000518.5:c.235delC, NM_000518.5:c.230delC, NM_000518.5:c.230C>A, NM_000518.5:c.226delC, NM_000518.5:c.221_224dupATGG, NM_000518.5:c.217_221delAGTGAinsT, NM_000518.5:c.219_220delTG, NM_000518.5:c.220G>A, NM_000518.5:c.217dupA, NM_000518.5:c.216dupT, NM_000518.5:c.216delT, NM_000518.5:c.209G>A, NM_000518.5:c.208G>A NM_000518.5:c.206T>A, NM 000518.5:c.203 204delTG, NM_000518.5:c.203T>A NM_000518.5:c.201delA, NM_000518.5:c.199A>G, NM_000518.5:c.196A>C NM 000518.5:c. 189 195delTCATGGC, NM 000518.5:c. 194delG, NM 000518.5:c.190C>T, NM_000518.5:c.184A>T, NM_000518.5:c.182T>A, NM_000518.5:c.179A>C, NM_000518.5:c.176deIC, NM_000518.5:c.176C>G, NM_000518.5:c.170G>A NM_-000518.5:c.169G>C, NM_000518.5:c.164_168delTTATGinsGGCATCA, NM_000518.5:c.166dupA, NM_000518.5:c.162delT, NM_000518.5:c.155delC, NM_000518.5:c.155C>T, NM 000518.5:c.153delT, NM_000518.5:c.147delG, NM_000518.5:c.143_146dupATCT, NM_000518.5:c.143dupA, NM_000518.5:c.137T>C, NM 000518.5:c.135delC, NM 000518.5:c.134C>G, NM 000518.5:c.130G>T, NM_000518.5:c.127_129deITTT, NM_000518.5:c.126_129deICTTT, NM_000518.5:c.130G>A, NM_000518.5:c.128T>C, NM_000518.5:c.126delC, NM 000518.5:c.127T>G, NM 000518.5:c.127T>C, NM 000518.5:c. 114 120deIGACCCAG, NM_000518.5:c.117_118delCC, NM_000518.5:c.118C>T, NM_000518.5:c.115delA, NM_000518.5:c.114G-A, NM_000518.5:c.112delT, NM_000518.5:c.113G>A NM_000518.5:c.110delC, NM_000518.5:c.109C>T, NM_000518.5:c.108C>A, NM 000518.5:c.102_104delGGT, NM 000518.5:c.103G>T, NM 000518.5:c.9321_96delGGTCTATTTTCCCACCCTTAGGCTG, NM 000518.5:c. 93
22 95delTGGTCTATTTTCCCACCCTTAGGCT, NM 000518.5:c. 94 95insGGC NM_000518.5:c.93G>T, NM_000518.5:c.93-17_93-1deITATTTTCCCACCCTTAG, NM 000518.5:c.93-1G>T, NM 000518.5:c.93-1G>C, NM 000518.5:c.93-1G>A, NM_000518.5:c.93-2A>G, NM_000518.5:c.93-2A>C, NM_000518.5:c.93-3T>G, NM_000518.5:c.93-15T>G, NM_000518.5:c.93-21G>A, NM_000518.5:c.93-23T>C NM_000518.5:c.92+6T>C, NM_000518.5:c.92+5G>T, NM_000518.5:c.92+5G>C NM_000518.5:c.92+5G>A, NM_000518.5:c.92+2T>G, NM_000518.5:c.92+2T>C NM_000518.5:c. $92+2$ T>A, NM 000518.5:c.92+1G>T, NM_000518.5:c.92+1G>C NM_000518.5:c.92+1G>A, NM_000518.5:c.92G>C, NM_000518.5:c.92G>A NM_000518.5:c.91A>G, NM_000518.5:c.91A>C, NM_000518.5:c.90C>T, NM_000518.5:c.85dupC, NM_000518.5:c.86T>A, NM_000518.5:c.82G>T, NM_000518.5:c.81G>C, NM_000518.5:c.80A>G, NM_000518.5:c.79_80insT, NM_000518.5:c.79G>T, NM_000518.5:c.79G>A, NM_000518.5:c.68_74delAAGTTGG,

## GENESeeker

List of variants analysed for the Geneseeker panel version 3.1, however, only variants classified as pathogenic and likely pathogenic at the time of analysis are reported.

## PATIENT 3.1

GENE DISEASE NAME $\quad$ VAR NAME

|  |  | NM_000518.5:c.75T>A, NM_000518.5:c.71_73delTTG, NM_000518.5:c.70G>T, NM_000518.5:c.70G>A, NM_000518.5:c.68A>C, NM_000518.5:c.64_67delGATG, NM_000518.5:c.67G>T, NM_000518.5:c.67G>C, NM_000518.5:c.64dupG, NM_000518.5:c.61G>A, NM_000518.5:c.59A>G, NM_000518.5:c.55G>A, NM_000518.5:c.52A>T, NM_000518.5:c.51delC, NM_000518.5:c.51C>T, NM_000518.5:c.48G>A, NM_000518.5:c.46delT, NM_000518.5:c.47G>A, NM_000518.5:c.45dupG, NM_000518.5:c.36delT, NM_000518.5:c.33dupC, NM_000518.5:c.34G>A, NM_000518.5:c.32C>A, NM_000518.5:c.27dupG, NM_000518.5:c.25_26delAA, NM_000518.5:c.26A>G, NM_000518.5:c.22_24delGAG, NM_000518.5:c.22G>A, NM_000518.5:c.20delA, NM_000518.5:c.20A>T, NM_000518.5:c.19_20delGAinsAT, NM_000518.5:c.20A>C, NM_000518.5:c.18_19delTG, NM_000518.5:c.15_19delTCCTGinsATCTT, NM_000518.5:c.17_18delCT, NM_000518.5:c.19G>A, NM_000518.5:c.8A>C, NM_000518.5:c.4delG, <br> NM_000518.5:c.4G>T, NM_000518.5:c.3G>A, NM_000518.5:c.2T>G, NM_000518.5:c.2T>C, NM_000518.5:c.2T>A, NM_000518.5:c.1A>G, NM_000518.5:c.-18C>G, NM_000518.5:c.29G>A, NM_000518.5:c.-41delT, NM_000518.5:c.-50A>C, NM_000518.5:c.-77_-76deIAA, NM_000518.5:c.-75G>C, NM_000518.5:c.-78A>G, NM_000518.5:c.-78A>C, NM_000518.5:c.-79A>G, NM_000518.5:c.-80T>C, NM_000518.5:c.-80T>A, NM_000518.5:c.-81A>G, NM_000518.5:c.-82C>T, NM_000518.5:c.-82C>A, NM_000518.5:c.-136C>T, NM_000518.5:c.-136C>G, NM_000518.5:c.-137C>T, NM_000518.5:c.-137C>G, NM_000518.5:c.-137C>A, NM_000518.5:c.-138C>T, NM_000518.5:c.-138C>G, NM_000518.5:c.-138C>A, NM_000518.5:c.-140C>T, NM_000518.5:c.-142C>T, NM_000518.5:c.-151C>T, <br> NM_000518.5:c.*185_*209delGGTCAGTGCATTTAAAACATAAAGA, NM_000518.5:c.-50A>G, NM_000518.5:c.-142C>A |
| :---: | :---: | :---: |
| HEXA | Tay-Sachs disease | 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.1422G>C, NM_000520.6:c.1351C>G, NM_000520.6:c.1278_1281dupCTAT, <br> NM_000520.6:c.1277_1278insTAT, NM_000520.6:c.1274_1277dupTATC, NM_000520.6:c.1260G>C, NM_000520.6:c.1214_1215delAAinsG, <br> NM_000520.6:c.1177C>T, NM_000520.6:c.1176G>A, NM_000520.6:c.987G>A, NM_000520.6:c.986+3A>G, NM_000520.6:c.915_917deICTT, NM_000520.6:c.805+1G>C, NM_000520.6:c.805+1G>A, NM_000520.6:c.805G $>$ A, <br> NM_000520.6:c.759_774dupGCTTGCAGAGTTTGAC, NM_000520.6:c.772G>C, NM_000520.6:c.749G>A, NM_000520.6:c.745C>T, NM_000520.6:c.739C>T, NM_000520.6:c.672+1G>A, NM_000520.6:c.632T>C, NM_000520.6:c.629C>T, NM_000520.6:c.611A>G, NM_000520.6:c.540C>G, NM_000520.6:c.538T>C, NM_000520.6:c.533G>T, NM_000520.6:c.533G>A, NM_000520.6:c.532C>T, NM_000520.6:c. $509 \mathrm{G}>$ A, NM_000520.6:c. $508 \mathrm{C}>$ T, NM_000520.6:c.459+5G>A, NM_000520.6:c.380T>G, NM_000520.6:c.254-1G>C, NM_000520.6:c.173G>A, NM_000520.6:c.116T>G, NM_000520.6:c.78G>A, NM_000520.6:c.77G>A, NM_000520.6:c.2T>C, NM_000520.6:c.1A>T, NM_000520.6:c.1A>G |
| HEXB | Sandhoff disease, infantile, juvenile, and adult forms | NM_000521.4:c.114delG, NM_000521.4: c.:170delG, NM_000521.4:c.202_203insGG, NM_000521.4: c.298delC, NM_000521.4:C.508C>T, NM_000521.4:c.797A>G, NM_000521.4:c.841C>T, NM_000521.4:C. 850 C>T, NM_000521.4:c.1234_1238delAAAGC, NM_000521.4:c.1250C>T, NM_000521.4: c.1308_1309delCA, NM_000521.4:c.1344delT, NM_000521.4:c.1367A>C, NM_000521.4:c.1375G>T, NM_000521.4:c.1380G>A, NM_000521.4:c.1514_1515insGGCAAGTGCTGTT, NM_000521.4:c.1537_1538delCT, NM_000521.4:c.1618_1619insGTTCATGTTATCTACAGACGT |
| HFE | Hemochromatosis, Type 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.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.899T>G, NM_000187.4:c.873C>A, NM_000187.4:c.808G>A, NM_000187.4:c. 688 C>T, NM_000187.4:c.674G>A, NM_000187.4:c.481G>A, NM_000187.4:c.469+2T>C, NM_000187.4:c.342+1G>A, NM_000187.4:c. $283-4 C>T$, NM_000187.4:c.283-5delT, NM_000187.4:c.175delA, NM_000187.4:c.172A>T, NM_000187.4:C.140C>T, NM_000187.4:C.16-1G>A |
| HGSNAT | Mucopolysaccharidosis type IIIC (Sanfilippo C)/Retinitis pigmentosa 73 | NM_152419.3:c.493+1G>A, NM_152419.3:c.607C>T, NM_152419.3:c.848C>T, NM_152419.3:c. $1030 \mathrm{C}>$ T, NM_152419.3:c.1250+1G>A, NM_152419.3:c.1378-1G>A, NM_152419.3:c.1464+1G>A, NM_152419.3:c.1501delA, NM_152419.3:c.1553C>T, NM_152419.3:c.1622C>T, NM_152419.3:c.1843G>A |
| HMGCL | HMG-CoA lyase deficiency | 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. 1005 C>G, NM_002150.3:C.987delA, NM_002150.3:c.774T>G, NM_002150.3:C.6.600C>G |
| HPS1 | Hermansky-Pudlak Syndrome 1 | 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. $397 \mathrm{G}>$ T |
| HSD17B4 | D-bifunctional protein 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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List of variants analysed for the Geneseeker panel version 3.1, however, only variants classified as pathogenic and likely pathogenic at the time of analysis are reported.

## PATIENT 3.1

| GENE | DISEASE NAME | VAR NAME |
| :--- | :--- | :--- |


| HYLS1 | Hydrolethalus Syndrome | NM_001134793.2.:C.632A>G, NM_001134793.2:C.6696\%>A, NM_001134793.2:C.7.724C |
| :---: | :---: | :---: |
| IDS | Mucopolysaccharidosis, Type II (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.1148delC, NM_000202.8:c.1122C>T, NM_000202.8:c. $998 \mathrm{C}>$ T, NM_000202.8:c.937C>T, NM_000202.8:c. $880-8 \mathrm{~A}>\mathrm{G}$, 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. 51414 C T NM_000202.8:c.404A>G, NM_000202.8:c.388_389insG, NM_000202.8:c.314_317dupTCAA, NM_000202.8:c.:283A>G, NM_000202.8:c.278delC, NM_000202.8:c. $240+1 \mathrm{G}>\mathrm{A}$, NM_000202.8:c. 208 dupC |
| IKBAP/ ELP1 | Dysautonomia, familial | NM_003640.5:c. 3332 delC, NM_003640.5:c.2741C>T, NM_003640.5:c. 2328 delT , NM_003640.5:c.2204+6T>C, NM_003640.5:c.2087G>C, NM_003640.5:c.2087G>A, NM_003640.5:. $1460+2$ T>C |
| IL11RA | Crigler-Najjar Syndrome | Nm_001142784.3.c.-3327A>6 |
| IL2RG | Severe Combined Immunodeficiency, X-Linked | 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, NM_000206.3:c.341G>A, NM_000206.3:c.186T>A |
| IVD | Isovaleric acidemia | NM_002225.5.c.-.8T>G, NM_002225.5.5.c.125T>C, NM_002225.5:C.148C>T, NM_002225.5.c.c.149G>A, <br>  NM_002225.5.c. $456+2 T$ TC, NM_002225.5:c.469_470insGT, NM_OO2225.5.c.c.498delG, NM_002225.5.5.c.550+1G>A, NM_002225.5:c.c.5846>A, NM_002225.5:c. $5966>$ T, NM_002225.5:c.6.617delT, NM_002225.5:c. $784+16>\mathrm{A}$, NM_002225.5.c.c.851G>A, NM_002225.5.:.c.932CTT, NM_0022255.5.c..985_-986ddelAT, NM_002225.5.c.1132T>C, NM_002225.5: :c. $1136 \_1138+4 d$ elTGGGTGA, NM_002225.5: $:$ c. $1138+1$ _1138 1 _4delGTGA, <br>  NM_002225.5:c.1199A>G |
| LAMA2 | LAMA2-related Muscular Dystrophy |  <br>  <br> NM_O000426.4:C.C2098_2099deltT, NM_000426.4:C.C2323-2AA>T, NM_000426.4:C.2451-2AA>G, <br>  <br>  <br>  <br> NM - $000426.4 .4 .46454 C T T$, NM- <br>  <br>  <br>  <br> NM_000426.4:C.7732CדT, NM_000426.4:C.7810C $>$ T, NM_000426.4:C.7888C>T, <br>  <br>  |
| LAMA3 | Epidermolysis bullosa, junctional, Herlitz type (LAMA3-related) | NM_198129.4:C.5160delG, NM_198129.4:C.6009delG, NM_198129.4:C. $6808 \mathrm{C}>\mathrm{T}$, NM_198129.4:c.6943A>T, NM_198129.4:c.7489C>T, NM_198129.4:C.8177+2T>G, NM_198129.4:c.8962C>T, NM_198129.4:c.9156_9157insA, NM_198129.4:C..9704_9705insT |
| LAMB3 | Epidermolysis bullosa, junctional, Herlitz type (LAMB3-related) | NM_000228.3:c.3228+1G>T, NM_000228.3:c.3228+1G>A, NM_000228.3:c.2806C>T, NM_000228.3:c.1903C>T, NM_000228.3:c.1830G>A, NM_000228.3:c.1587_1588delAG, NM_000228.3:c.1438_1442delCCGTG, NM_000228.3:c.1357delT, NM_000228.3:c.904deIT, NM_000228.3:c.727C>T, NM_000228.3:c.628+1delG, NM_000228.3:c. $628 \mathrm{G}>\mathrm{A}$, NM_000228.3:c.565-2A>G, NM_000228.3:c.496C>T, NM_000228.3:c.124C>T |
| LAMC2 | Epidermolysis bullosa, junctional, Herlitz type (LAMC2-related) | NM_005562.3.C.283C>T, NM_005562.3:. 3 .343C>T, NM__005562.3:C.405-16>A, NM_005562.3:c. 16599 CA, NM__005562.3:c. 1782 _1783delGC, <br>  NM_005562.3:c.3120_3121insA, NM_005562.3:C.3510__3511insA |
| LIFR | Stuve-Wiedemann syndrome/Schwartz-Jampel type 2 syndrome | NM_001127671.2:c.2503G>T, NM_001127671.2:c.2013dupT, <br> NM_001127671.2:c.1789C>T, NM_001127671.2:c._1018_1022delAATTG, NM_001127671.2:c.653dupT, NM_001127671.2:c.171_174deITAAC |
| LOXHD1 | Deafness, autosomal recessive 77 | NM_001384474.1:c.4714CDT, NM_001384774.1:c.452__4525delAG, <br> NM_001384774.1:c.45266>A, NM_001384474.1:c.c.3244C>A, NM_001384474.1:C.3874C>T. <br> NM_001384774.1:C.C2088CT, NM_001384774.1:C.512-16>A, <br> NM_001384474.1:C.457_461dupCGCCA, NM_001384474.1:C.CTTA |
| LRPPRC | Leigh Syndrome, FrenchCanadian Type | NM_133259.4:c.3830_3837delGTGGTGCA, NM_133259.4:c.1061C>T |
| 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.2401G>T, NM_000528.4:c.2398G>A, |

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List of variants analysed for the Geneseeker panel version 3.1, however, only variants classified as pathogenic and likely pathogenic at the time of analysis are reported.

## PATIENT 3.1

| 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. $1067 C>G$, NM_000528.4:c.384G>A, NM_000528.4:c.215A>T, NM_000528.4:c.1A>G |
| :---: | :---: | :---: |
| MAT1A | Hypermethioninemia | NM_000429.3:ं:.1070C>T, NM_000429.3::c.1043_1044delTG, NM_000429.3:c.10066>A, NM_000429.3.c..966T>G, NM_000429.3:c.c.914T>C, NM_000429.3:c.:827_828insG, NM_000429.3:c.7916>A, NM_000429.3:c.7900C>T, NM_000429.3:.5.595C>T, NM_000429.3:.c.538_539insTG |
| MCCC1 | 3-Methylcrotonyl-CoA carboxylase 1 deficiency |  <br>  <br>  NM_020166.5:. .11144 CT, NM NM_ $020166.5 \mathrm{C}: .3886$ AA, |
| MCCC2 | 3-Methylcrotonyl-CoA carboxylase 2 deficiency | NM_022132.5:c.295G>C, NM_022132.5:c. $380 \mathrm{C}>G, \mathrm{NM} \_022132.5$ :c. $\mathrm{C} .464 \mathrm{G}>\mathrm{A}$, NM_022132.5:c.499T>C, NM_022132.5:c.515_516insT, NM_022132.5:c..639delG, <br>  NM_022132.5:c.994C>T, NM_022132.5c.c.1015G>A, NM_022132.5:c. $1065 A>T$, NM_022132.5:c.1072+1G>A, NM_022132.5:c.1309A>G, NM_022132.5.c..1367C>T, NM_022132.5.c.c.1576_1577insT, NM_022132.5:c.1580G>A |
| MCOLN1 | Mucolipidosis IV |  NM 020533 3.c. 12070 CT |
| MEFV | Familial Mediterranean fever | NM_000243.3:c.2282G>A, NM_000243.3:c.2230G>T, NM_000243.3:c.2177T>C, NM_000243.3:c.2084A>G, NM_000243.3:c.2082G>A, NM_000243.3:c.2080A>G, NM_000243.3:c.2076_2078delAAT, NM_000243.3:c.2040G>C, NM_000243.3:c.2040G>A, <br> NM_000243.3:c.1958G>A, NM_000243.3:c.1772T>C, NM_000243.3:c.1437C>G NM_000243.3:c.1223G>A, NM_000243.3:c.1141C>T, NM_000243.3:c.1016C>T, NM_000243.3:c.800C>T, NM_000243.3:c.688G>A, NM_000243.3:c.656dupG, NM_000243.3:c.501G>C, NM_000243.3:c.443A>T, NM_000243.3:c.163dupA |
| MFSD8 | Ceroid Lipofuscinosis, Neuronal, 7 |  NM_001371596.2: :c.1235C CT, NM_001371596.2: :c.1090delA, NM_001371596.2:.c.999- <br>  <br>  |
| MKKS | Bardet-Biedl Syndrome 6 | NM_170784.3:c.1436C>G, NM_170784.3:c.1225_1226delGG, NM_170784.3: c.830T>C, <br>  |
| MKS1 | Bardet-Biedl syndrome 13/Joubert syndrome 28/Meckel syndrome 1 | 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 with subcortical cysts | NM_015166.4:C.839CDT, NM_015166.4:C.424-2A>C, NM_015166.4:C.423C>A, NM_015166.4:C.422AA>G, NM_015166.4:C.278C>T, NM_015166.4:C.C.274C TT, NM_015166.4:C.206C>T, NM_015166.4:C.C.135dupC, NM_015166.4:C. 33dupC |
| MLYCD | Malonyl-CoA decarboxylase deficiency |  |
| MMAA | Methylmalonic Aciduria, MMAA-Related | NM_172250.3:C.283CTT, NM_172250.3:C.387C CA, NM_172250.3:C.440G>A, NM_172250.3:C.447_448insG, NM_172250.3:C.451delC, NM_172250.3:c.c.503delC, NM_172250.3:.5886>T, NM_172250.3:C.620A>G, NM_172250.3:.8.8116>T, NM_172250.3: c .1032delT |
| MMAB | Methylmalonic Aciduria, MMAB-Related |  <br>  <br>  NM 052845.4:c.197-1G>A |
| MMACHC | 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.440G>C, NM_015506.3:c.481C>T NM_015506.3:c.482G>A, NM_015506.3:c.544_545delTG, NM_015506.3:c.608G>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.688C>T |
| MMADHC | Homocystinuria, cbID type, variant 1/Methylmalonic aciduria and homocystinuria, cbID type/Methylmalonic aciduria, cbID type, variant 2 | NM_015702. 3: :C.795dupT, NM_015702.3:3. C .776TTC, NM_015702.3: ©:.748CCT, <br>  NM_015702.3:c.478+16>T, NM_015702.3:c.419dupA, NM_015702.3:c.57_64delCTCTTTAG |

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## GENESeeker

List of variants analysed for the Geneseeker panel version 3.1, however, only variants classified as pathogenic and likely pathogenic at the time of analysis are reported.

## PATIENT 3.1

| GENE | DISEASE NAME | VAR NAME |
| :---: | :---: | :---: |
| MMUT | Methylmalonic acidemia | NM_000255.4:c.2150G>T, NM_000255.4:c.2080C>T, NM_000255.4:c.1924G>C, NM_000255.4:C.1871A>G, NM_000255.4:c.1867G>A, NM_000255.4.c.1741C>T, <br>  NM_000255.4:c.1399C>T, NM_000255.4:c.1280G>A, NM_000255.4.4.c.1207C>T, NM_000255.4:c.1181T>A, NM_000255.4:c.1106G>A, NM_000255.4:c..914T>C, NM_000255.4:c.682C>T, NM_000255.4:c..671_678dupAATTTATG, NM_000255.4:c.655A>T, NM_000255.4:c.643G>A, NM_000255.4:c. $6076>A$, , NM_000255.4:c.c. $572 \mathrm{C}>\mathrm{A}$, 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 | NM_001358530.2:C.1027C>T, NM_001358530.2:C..956G>A, <br> NM_001358530.2::..397_406delCCGGACGTGG, NM_001358530.2:c.218G>A, <br> NM_001358530.2:c.217C>T |
| 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 depletion syndrome | NM_002437.5:c.498C>A, NM_002437.5:c. $462-2 A>C$, NM_002437.5:c. $359 \mathrm{G}>\mathrm{A}$, NM_002437.5:c.284dupG, NM_002437.5:c.263_265delAGA, NM_002437.5:c.263A NM_002437.5:c.149G>A, NM_002437.5:c.148C>T, NM_002437.5:c.70G>T |
| MTHFR | Homocystinuria due to MTHFR deficiency | 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, XLinked | NM_000252.3:C..70C>T, NM_000252.3:C.420C>G, NM_000252.3.c.c.461T>G, NM_000252.3:c.594_598delCCCTG, NM_000252.3:С..670C>T, NM_000252.3:c.721C>T, <br> NM_000252.3:c..780T>A, NM_000252.3:c.c.962_963insA, NM_000252.3:c..963delA, NM_000252.3:c.1261-10A>G, NM_000252.3:c.1304_1305insTCCTA, NM_000252.3:c.1356_1357delCC, NM_000252.3:c.1415_1416delGT |
| MTTP | Abetalipoproteinemia | NM_001386140.1:c.703_704delAC, NM_001386140.1:c.1619G>A, NM_001386140.1:c. $1769 G>$ T, NM_001386140.1:c. $1867+1 G>A$ NM_001386140.1:c.2030delC, NM_001386140.1:c. $2593 G>$ T |
| MYO15A | Deafness, autosomal recessive 3 |  NM_016239.4: c. $3756+1 G$ TT, NM_016239.4:c.4351G>A, NM_016239.4:c.4750_4751insTC, <br> NM_016239.4:C.5326C>T, NM_016239.4:C.5492G>T, NM_016239.4:C.c.6003delG, <br> NM_016239.4:C.6046+2T>G, NM_016239.4:C.6614C>T, NM_016239.4:C.6743C>T, <br> NM_016239.4:c.6863_6873delCGGACCTGGAG, NM_016239.4:c.8148G>T, <br> NM_016239.4:c.8410A>T, NM_016239.4:C.8429_8447delGCGGGCAGCTGCGGGTCCT, <br> NM_016239.4:c.8548C>T, NM_016239.4:c.9956_-9959delCTGA, NM_016239.4:c.10573delA |
| MYO7A | Usher syndrome, type 1B |  NM_000260.4:c.494C>T, NM_000260.4c:.634CDT, NM_000260.4c:.6356>A, <br>  <br>  NM_000260.4:C:1996C>T, NM_000260.4:4:.2023C $>$ T, NM_000260.4:4:.2476G>A, NM_000260.4:C.2617C>T, NM_000260.4:C. $31347>$ C, NM_000260.4:C. $3504-16>C$, <br>  <br>  NM_000260.4:.5227CDT, NM_000260.4:C.5392C>T, NM_000260.4:C.5507T>G, NM_000260.4:c.56186>A, NM_000260.4:c.5884G>T, NM_000260.4:c:.5884__5887deltTCT, NM_000260.4: : C.5967C>G, NM _000260.4:c. 6024 delG |
| NAGS | N -acetylglutamate Synthase Deficiency | NM_153006.3:c. 916 -2A>T, NM_153006.3:c.. $971 \mathrm{G}>\mathrm{A}, \mathrm{NM} \_153006.3:$ :c. 1025 delG, NM_153006.3:c.1289T>C, NM_153006.3:c.1299G>C, NM_153006.3:c.:1306_1307insT |
| NDRG1 | Charcot-Marie-Tooth Disease 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:c.-18-2_-18-1delAG |
| NEB | Nemaline myopathy 2, autosomal recessive | NM_001164507.2:C..25404+1_25404+2insATGGA, NM_001164507.2:C. $25174 G$ TT, NM_001164507.2:c.24874-1G>A, NM_001164507.2:c.24687_24688delGA, NM_001164507.2:C. 24665_24666delTT, NM_001164507.2:C.2.23989C>T, NM_001164507.2:c.23421_23422delAG, NM_001164507.2:c.21945+1G>A, NM_001164507.2:c.21076C>T, NM_001164507.2:C.c.19285_19286delGCinsAA, NM_001164507.2:c.12203_12204deltG, <br> NM_001164507.2:c.8031_8041deIAAATAAACGAG, NM_001164507.2:C.6105dupT, NM_001164507.2:C. $5567 \mathrm{G}>\mathrm{A}, \mathrm{NM} \_001164507.2: \mathrm{C} .3191 \mathrm{~A}>\mathrm{G}, \mathrm{NM} \_001164507.2 \mathrm{C} .2173 \mathrm{G}>\mathrm{T}$, NM 001164507.2:c..843T>G |
| NPC1 | Niemann-Pick disease, type C1 |  |

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List of variants analysed for the Geneseeker panel version 3.1, however, only variants classified as pathogenic and likely pathogenic at the time of analysis are reported.

## PATIENT 3.1

| GENE | DISEASE NAME | VAR NAME |
| :---: | :---: | :---: |
| NPC2 | Niemann-pick disease, type C2 | NM_006432.5:c.441+16>A, NM_006432.5:c.436C>T, NM_006432.5:C. 3 388CT, <br>  <br>  |
| NPHP1 | Juvenile Nephronophthisis | NM_001128178.3: c. $1716+1 G$ TT, NM_001128178.3: C . 1016 dupC , NM_001128178.3:c. $771+58$ C>T, NM_001128178.3.3.c. 555 dupA, NM 001128178.3 c. .455C>G, NM 001128178.3 .c. 80T>A, NM 001128178.3 c.c. 1delA |
| 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.c.2491C>T, NM_004646.4:c.2464G>A, NM_004646.4:c.c.2456A>T, NM_004646.4:c. $1715 \mathrm{G}>\mathrm{A}$, NM_004646.4:C.1481delC, NM_004646.4:c.1307_1308dupAC, $\qquad$ |
| NR2E3 | Enhanced S-cone syndrome | 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 anhidrosis | 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. $1870 C>T$, NM_002529.4:c.1926_1927insT, NM_002529.4:c.1960C>T, NM_002529.4:c.2084C>T, NM_002529.4:C.2339G>C |
| OAT | Ornithine Aminotransferase Deficiency | NM_000274.4:c.1276C>T, NM_000274.4:c.1250C>T, NM_000274.4:c.1205T>C, NM_000274.4:c.994G>A, NM_000274.4:c.955C>T, NM_000274.4:c.952delG, NM_000274.4:c.952G>A, NM_000274.4:c..901-2A>G, NM_000274.4:c.824G>A, NM_000274.4:C.812G>A, NM_000274.4:C.C677C>T, NM_000274.4:C.6277>A, NM_000274.4:C.278G>T, NM_000274.4:c.268C>G, NM_000274.4:c.159delC |
| OCRL | Lowe syndrome, X-Linked | 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. $2530 C>$ T, NM $000276.4:$ c. $2534 d \mathrm{delA}$ |
| OTC | Ornithine transcarbamylase deficiency | NM_000531.6:c. $77 \mathrm{G}>\mathrm{A}, \mathrm{NM}$ _000531.6:c. $118 \mathrm{C}>\mathrm{T}$, NM_000531.6:c. $119 \mathrm{G}>\mathrm{A}$, NM_000531.6:c.134T>C, NM_000531.6:c.1486>T, NM_000531.6:c.238A>G NM_000531.6:c.245T>G, NM_000531.6:c.259G>A, NM_000531.6:c.275G>A, NM_000531.6:c. $.332 T>C$, NM_000531.6:c.421C>T, NM_000531.6:c.460G>T, NM_000531.6:c.563G>T, NM_000531.6:c.589G $>$ T, NM_000531.6:c.617T>G, NM_000531.6:c.646C>G, NM_000531.6:c.674C>T, NM_000531.6:c.717+2T>C, NM 000531.6:C.829C>T |
| PAH | Phenylalanine hydroxylase deficiency (including phenylketonuria) | 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.1222C>T, NM_000277.3:C.1217T>C, NM_000277.3:C. $1208 \subset \subset$ T, NM_000277.3:C. $11199+17 \mathrm{G}>\mathrm{A}, \mathrm{NM}$ _000277.3:C. $11199+1 \mathrm{G}>\mathrm{A}$, <br>  NM_000277.3:c. $11166 d \mathrm{delC}$, NM_000277.3:C. 1162 C GA, NM_000277.3:C. $11339 \mathrm{C} \subset$ T, NM_000277.3:C.C.1068CPA, NM_000277.3:C. 1066-3C>T, NM_000277.3:C.C.1066-11G>A, NM_000277.3:c.1.1045T>C, NM_000277.3:c.c.1042C>G, NM_000277.3:c.1033G>T, NM_000277.3:c.1030G>A, NM_000277.3:..955G>T, NM_000277.3:c.926C>T, <br>  NM_000277.3:c.896T>G, NM_000277.3:c. $842+5 \mathrm{GG} \times \mathrm{A}, \mathrm{NM}$ _000277.3:c. $838 \mathrm{G}>\mathrm{A}$, NM_000277.3:c.829T>G, NM_000277.3:c.823C>T, NM_000277.3:c.818C>T, NM_000277.3:c. $8814 \mathrm{G}>$ T, NM_000277.3:c.809G $>$ A, NM_000277.3:c. .806delT, NM_000277.3:c. 7826 GA, NM_000277.3:c. $764 T>C$, NM_000277.3:c. $7556 \mathrm{C}>\mathrm{A}$, NM_ $000277.3: C .754 C>T$, NM_000277.3:C. $745 C>T$, NM_ $000277.3: \mathrm{C} .737 \mathrm{C}>\mathrm{A}$, NM_000277.3:C.734T>C, NM_000277.3:C.733G>C, NM_000277.3:c.7286GAA, <br>  NM_000277.3:C.665A>G, NM_000277.3:c.638T>C, NM_000277.3:C.c611A>G, NM_000277.3:c. $5697 T$ C, NM_000277.3:C.533A>G, NM_000277.3:c. $529 G>A$, <br>  NM_000277.3:C.503delA, NM_000277.3:c.490A>G, NM_0002777.3:c.482T>C, NM_000277.3:c.473G>A, NM_000277.3:c.472C>T, NM_000277.3:c. 450 dupA, NM_000277.3:C.442-1G>A, NM_000277.3:c.442-5C>G, NM_000277.3:c. $441+56>T$, NM_000277.3:c.441+1G>A, NM_000277.3:c.357delC, NM_000277.3:c. $331 \mathrm{C}>$ T, NM_000277.3:c. 3 320A>G, NM_000277.3:c.311C>A, NM_000277.3:C.284_286delTCA, NM_000277.3:c.261C>A, NM_000277.3:c.250G>T, NM_000277.3:c.232G>A, NM_000277.3:c.204A>T, NM_000277.3:c.c.194T>C, NM_000277.3:C.165T>G, NM_000277.3:C. $.158 G>A$, , NM_000277.3:c.157C>T, NM_000277.3:C. .143T>C, NM_000277.3:C.136G>A, NM_000277.3:C.117C>G, NM_000277.3:C.47_48delCT |
| PANK2 | Pantothenate Kinase- <br> Associated Neurodegeneration | 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 | NM_001040716.2.:c.1748G>T, NM_001040716.2:C.4966¢>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, <br>  <br>  NM_000282.4:c.c.1594_1597deliTGT, NM_000288.4:c.:1891G>C, NM_000282.4:c.1899+1_1899+ddelGTAA |

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## GENESeeker

List of variants analysed for the Geneseeker panel version 3.1,
however, only variants classified as pathogenic and likely pathogenic at the time of analysis are reported.

## PATIENT 3.1

| 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.683C>T, NM_000532.5:c.737G>T, <br> NM_000532.5:c.984_985insT, NM_000532.5:c.1169_1170insT, <br> NM_000532.5:c.1218_1231delGGGCATCATCCGGCinsTAGAGCACAGGA, <br> NM_000532.5:c.1219_1224deIGGCATCinsAA, NM_000532.5:c.1223_1226deITCAT, <br> NM_000532.5:c.1228C>T, NM_000532.5:c.1229_1230insT, NM_000532.5:c.1283C>T <br> NM_000532.5:c.1304A>G, NM_000532.5:c.1490C>T, NM_000532.5:c.1534C>T <br> NM_000532.5:c.1537_1538insCCC, NM_000532.5:c.1606A $>$-G |
| PCDH15 | Usher syndrome, type 1F | NM_033056.4:c.5724_5755delACGCACAAATGTTTCAGAACTTCAAACTATGT, <br> NM_033056.4:c.5659A>T, NM_033056.4:c.4961_4962insTGAT, <br> NM_033056.4:c.4937_4940dupTGAT, NM_033056.4:c.4864delA, <br> NM_033056.4:c.4548_4551dupATCT, NM_001384140.1:c. 3718 -2A>G, <br> NM_001384140.1:C.2645_2646delAT, NM_001384140.1:c.1940C>G, <br> NM_001384140.1: :c.1737C>G, NM_001384140.1:c.1583T>A, NM_001384140.1:c.1088delT, <br> NM_001384140.1:c. $1021 C>T$, NM_001384140.1:c.1006C>T, NM_001384140.1:c.7856>A, <br> 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: : : 8716>A |
| PEX1 | Peroxisome biogenesis disorder 1A (Zellweger) | NM_000466.3:C.3505_3517delCAGTTGTTTCAC, NM_000466.3:C.2916delA, NM_000466.3:c.2528G>A, NM_000466.3:C.2097dupT, NM_000466.3:c. $1991 T>C$, NM_000466.3:C.1952_1960dupCAGTGTGGA, NM_000466.3:C. .1842delA, NM 000466.3.c.c.1239+16>T, NM 000466.3:3.c. $877 C>T$ |
| 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.c.455_459dupGGAAA |
| PEX2 | Peroxisome biogenesis disorder 5A (Zellweger) | NM_000318.3:c.789_790delCT, NM_000318.3.:.1636>A |
| PEX7 | Rhizomelic chondrodysplasia punctata type 1 | NM_000288.4:C.532C>T, NM_000288.4:c.c618G>A, NM_000288.4:C.649G>A, NM_000288.4:c.653C>T, NM_000288.4:c.694C>T, NM_000288.4:C.722A>T, NM_000288.4:c.854A>G, NM_000288.4:c.8.875T>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.105856>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.9530T>C, NM_138694.4:c. 9370 C>T, NM_138694.4:C.c.9107T>G, NM_138694.4:c. $8870 T>C$, NM_138694.4:c.8824C>T, NM_138694.4:c.8518C>T, NM_138694.4:c.8408G>A, NM_138694.4:c. $84077>$ C, NM_138694.4:c. $8317 G>$ T, NM_138694.4:c.6854G>A, NM_138694.4:c.c.6499C>T, NM_138694.4:c.C.5895dupA NM_138694.4:C.5498C>T, NM_138694.4:C.5325_5326delAG, NM_138694.4:c.4870C>T, NM_138694.4:c.4165C>A, NM_138694.4:c.3940delA, NM_138694.4:c.3766delC, NM_138694.4:c..3761_3762delCCinsG, NM_138694.4:C.3367G>A, NM_138694.4:C. $3229-$ 2A>C, NM_138694.4:C.2854G>A, 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.2341C>T, NM_138694.4:c.1486C>T, NM_138694.4:c.1409G>A, NM_138694.4:C.1342GCC, NM_138694.4:c.982C>T, NM_138694.4:c. .930 delC, <br>  |
| PLA2G6 | Infantile neuroaxonal dystrophy 1 | NM_003560.4:c.2370T>G, NM_003560.4:C.2239C>T, NM_003560.4:c. 1903 C $>$ T, NM_003560.4:c.1894C>T, NM_003560.4:c.1634A>C, NM_003560.4:c.1612C>T, NM_003560.4:c.929T>A, NM_003560.4:c.238G>A, NM_003560.4:c.109C> |
| PMM2 | Congenital disorder of glycosylation type la | 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.97C>T, NM_000303.3:c.109C>T, NM_000303.3:c. $127 \mathrm{G}>C$, NM_000303.3:c. $131 \mathrm{~T}>\mathrm{C}$, NM_000303.3:c.190delT, NM_000303.3:c.193G>T, NM_000303.3:c.255+2T>C, NM_000303.3:c.256-1G>C, NM_000303.3:c.317A>T, NM_000303.3:c.323C>T, NM_000303.3:c.338C>T, <br>  NM_000303.3:c. $385 \mathrm{G}>\mathrm{A}$, NM_000303.3:c. 395 T >C, NM_000303.3:c.415G>A, NM_000303.3:c.422G>A, NM_000303.3:c.442G>A, NM_000303.3:c.470T>C, NM_000303.3:c. $623 \mathrm{G}>C$, NM_000303.3:c. $647 \mathrm{~A}>\mathrm{T}, \mathrm{NM}$ _000303.3:c. $652 \mathrm{C}>\mathrm{G}$, NM_000303.3:c.669C>G, NM_000303.3:c.677C>G, NM_000303.3:c.691G>A, NM_000303.3:c.710C>G, NM_000303.3:c.710C>T |
| PNPO | Pyridoxal 5'-phosphatedependent epilepsy | NM_018129.4:C.6746>A, NM_018129.4.C.685C>T |
| POLG | POLG-Related Disorders |  |

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## GENESeeker

List of variants analysed for the Geneseeker panel version 3.1, however, only variants classified as pathogenic and likely pathogenic at the time of analysis are reported.

## PATIENT 3.1

| 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 Disease, POMGNT1-Related | NM_017739.4:c.1864delC, NM_017739.4:c.1814G>C, NM_017739.4:c.1666G>A, NM_017739.4:c.1545delC, NM_017739.4:c.1539+1G>T, NM_017739.4:c.1539+1G>A, NM_017739.4:c.1469G>A, NM_017739.4:c.1425G>A, NM_017739.4:c.1411A>T, NM_017739.4:c.1274G>C, NM_017739.4:c.932G>A, NM_017739.4:c.931C>T, NM_017739.4:c.880-1G>A, NM_017739.4:c.794G>A, NM_017739.4:c.652+1G>A, NM_017739.4:c.636C>T, NM_017739.4:c.187C>T, NM_017739.4:c.92dupA |
| PPT1 | Ceroid Lipofuscinosis, Neuronal, 1 | NM_000310.4:c.840dupA, NM_000310.4:c.627+1G>T, NM_000310.4:c. $541 \mathrm{G}>$ T, NM_000310.4:C.451C>T, NM_000310.4:c.223A>C, NM_000310.4:c.29T>A |
| PROP1 | Combined Pituitary Hormone Deficiency 2 | NM_006261.5:c.469dupT, NM_006261.5:c.373C>T, NM_006261.5:c.358C>T, NM_006261.5:c. 349 T >A, NM_006261.5:c.310delC, NM_006261.5: c.301_302delAG, NM_006261.5:c.295C>T, NM_006261.5:c.263T>C, NM_006261.5: c. $247 \mathrm{C}>$ T, NM_006261.5:c.218G>A, NM_006261.5:c.217C>T, NM_006261.5:c.c.157delA, NM_006261.5:c.150delA, NM_006261.5: :c.112_124delTCGAGTGCTCCAC, NM_006261.5:c..4delG, NM_006261.5:c.2T>C, NM_006261.5:c.343-11C>G |
| PRPS1 | Arts syndrome, X-Linked | NM_002764.4:c.193G>A, NM_002764.4:C.344T>C, NM_002764.4:c.c.398A>C, NM_002764.4:c.455T>C, NM_002764.4:c.869T>C, NM_002764.4:c.916G>A |
| PSAP | Metachromatic <br> Leukodystrophy, PSAP-Related | NM_002778.4:c.1288C>T, NM_002778.4:c.1046T>C, NM_002778.4:c.643A>C, NM_002778.4:c.607C>T, NM_002778.4:C.1A>T |
| PYGM | McArdle disease | NM_005609.4:c.2392T>C, NM_005609.4:c.2262delA, NM_005609.4:c.2128_2130delTTC, NM_005609.4:c.2009C>T, NM_005609.4:c. $1963 G>A$, NM_005609.4:c.1827G>A, NM_005609.4:c.1768+1G>A, NM_005609.4:c.1726C>T, NM_005609.4:c.1722T>G, NM_005609.4:c.1628A>C, NM_005609.4:c.1621G>T, NM_005609.4:c.1466C>G, NM_005609.4:c.1094C>T, NM_005609.4:c.613G>A, NM_005609.4:c.501dupT, NM_005609.4:c.481C>T, NM_005609.4:c.393delG, NM_005609.4:C.280C>T, NM_005609.4:c.255C>A, NM_005609.4:c.148C>T, NM_005609.4:c.13_14delCT, NM_005609.4:c.1A>G |
| RAB23 | Carpenter Syndrome | NM_016277.5:c.434T>A, NM_016277.5:c.407dupC |
| RAG1 | Omenn syndrome / T- Bsevere combined immunodeficiency | NM_000448.3:c.256_257delAA, NM_000448.3:c.940C>T, NM_000448.3:c..983G>A, NM_000448.3:c. $1681 \mathrm{C}>$ T, NM_000448.3:c. $1682 \mathrm{G}>\mathrm{A}$, , NM_000448.3:c.2164G>A, NM_000448.3:c.2320G>T, NM_000448.3:c.2326C>T, NM_000448.3:c.2333G>A, NM_000448.3:c.2814T>G, NM_000448.3:c.c.2923C>T, NM_000448.3:c.3016A>G |
| RAG2 | Omenn syndrome / T- Bsevere combined immunodeficiency | NM_000536.4:c.1504A>G, NM_000536.4:C.1352G>C, NM_000536.4:c. $686 \mathrm{G}>\mathrm{A}$, NM_000536.4:c.685C>T, NM_000536.4:c.601C>T, NM_000536.4:C.283G>A, NM_000536.4:c.230C>A, NM_000536.4:c.115A>G |
| RAPSN | Myasthenic syndrome, congenital, 11, associated with acetylcholine receptor deficiency | NM_005055.5:c.848T>C, NM_005055.5:c.807C>A, NM_005055.5:c.603C>A, NM_005055.5.c..566C>T, NM_005055.5:c.490C>T, NM_005055.5: c. $484 \mathrm{G}>\mathrm{A}$, NM_005055.5:c.416T>C, NM_005055.5:c.264C>A |
| RDH12 | Leber congenital amaurosis 13 | 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.209_210insC, NM_152443.3:c.295C>A, NM_152443.3:c.377C>T, NM_152443.3:c..379G>T, NM_152443.3:c. $.448+1$ _448+4delGTAA, NM_152443.3:c.451C>A, NM_152443.3:C.451C>G, NM_152443.3:c.464C>T, NM_152443.3:c..523T>C, NM_152443.3:c.565C>T, NM_152443.3:3.c.677A>G, NM_152443.3:C.805_809delGCCCT |
| RLBP1 | Bothnia retinal dystrophy/Fundus albipunctatus/Retinitis punctata albescens | NM_000326.5:c. $.875 C>T$, NM_000326.5:c. $700 \mathrm{C}>$ T, NM_000326.5:c. $452 \mathrm{G}>\mathrm{A}$, NM_000326.5:c. 333 T>G |
| RPE65 | Leber congenital amaurosis 2 | 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.1087C>A, NM_000329.3:c.1022T>C, NM_000329.3:c.907A>T, NM_000329.3:c.881A>C, NM_000329.3:c.514_515delGT, NM_000329.3:c.394G>A, NM_000329.3:c.272G>A, NM_000329.3:c.271C>T |
| RPGRIP1L | Ciliopathies, RPGRIP1L-Related | NM_015272.5:c.3706C>T, NM_015272.5:c.3634_3637delGAAA, NM_015272.5:c.3548C>G, <br>  <br> NM_015272.5:c.2050C>T, NM_015272.5.c..2030C>T, NM_015272.5.c. $1975 T>C$, <br> NM_015272.5:c. 1843A>C, NM_015272.5:c. 1326_1329delAAAA, <br> NM_015272.5:c.1329dupA, NM_015272.5:c.1177G>A, NM_015272.5:c.776+1G>A, |

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## GENESeeker

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## 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 Spastic Ataxia of Charlevoix-Saguenay | NM_014363.6:c. $13237 C>T$, NM_014363.6:c. $12160 C>T$, NM_014363.6:c. $11624 G>A$, NM_014363.6:c.10954C>A, NM_014363.6:c.10907G>A, NM_014363.6:c.8844delT, NM_014363.6:c. $8107 \mathrm{C}>$ T, NM_014363.6:c. $7504 \mathrm{C}>$ T, NM_014363.6:c. $6781 \mathrm{C}>$ A, NM_014363.6:c.6563T>A, NM_014363.6:c.6355C>T, NM_014363.6:c.5618_5619delAT, NM_014363.6:c.4933C>T, NM_014363.6:C. $3198 T>A$, NM_014363.6:C. $994 A>T$, NM_014363.6:C.517C>T |
| 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>T, NM_016038.4:c.127G>T, NM_016038.4:c.c.120delG |
| SERPINA1 | Alpha-1-antitrypsin deficiency | NM_000295.5:c. 1177 C>T, NM_000295.5:c.1093G>A, NM_000295.5.5.c.848A>T, NM_000295.5.c.839A>T, NM_000295.5.c..739C>T, NM_000295.5.c.5.514G>T, <br>  <br>  NM_000295.5:c.194T>C, NM_000295.5:c.187C $>$ T |
| SGCA | Muscular dystrophy, limbgirdle, autosomal recessive 3 | NM_000023.4:c.101G>A, NM_000023.4:c.229C>T, NM_000023.4:c.371T>C, NM_000023.4:c.518T>C, NM_000023.4:c.574C>T, NM_000023.4:c. $662 \mathrm{G}>\mathrm{A}$, NM_000023.4:c.739G>A, NM_000023.4:c.850C>T, NM_000023.4:c.901_902insCC |
| SGCB | Limb-Girdle Muscular Dystrophy, Type 2E | NM_000232.5:c.552T>G, NM_000232.5: ©. $452 C>G$, NM_000232.5: $:$ c. $341 C>$ T, NM_000232.5:c. 323 T>G, NM_000232.5:c.299T>A, NM_000232.5: c.272G>T, NM_000232.5:C. 272 G >C |
| SGCG | Muscular dystrophy, limbgirdle, type 2C | NM_000231.3:c.88delG, NM_000231.3:c.195_195+3delAGTA, NM_000231.3:c.505+1G>A, NM_000231.3:c.521delT, NM_000231.3:c.787G>A, NM_000231.3:c.848G>A |
| SGSH | Mucopolysaccharidisis type IIIA (Sanfilippo A) | NM_000199.5:c.1380delT, NM_000199.5:c.c.1339G>A, NM_000199.5:c. $1298 G>A$, NM_000199.5:c.1167C>A, NM_000199.5:c.892T>C, NM_000199.5.:c.877C>T, NM_000199.5:c. $757 \mathrm{delG}, \mathrm{NM} \_000199.5$ :c. $.752 \mathrm{G}>\mathrm{C}, \mathrm{NM}$ _000199.5:c. $617 \mathrm{G}>\mathrm{C}$, NM_000199.5:c.466A>T, NM_000199.5:c..449G>A, NM_000199.5:c.416C>T, NM_000199.5:c. $383 \mathrm{C}>$ T, NM_000199.5: $\mathrm{C} .364 \mathrm{G}>\mathrm{A}$, NM_000199.5:c.337_345delCAAGCTGGTinsGCACAGGTGAG, NM_000199.5:c. 320 delt, NM_000199.5: :c.235A>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) | NM_001365088.1:c.c.3031C>T, NM_001365088.1:c.2023C>T, <br> NM_001365088.1:C.1584_1585delCTinsG, NM_001365088.1:c.c.619C>T, <br> NM_001365088.1:c..366T>G, NM_001365088.1:c..316+1G>A |
| SLC17A5 | Sialic acid storage disorder, 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.1411_1412delCT, NM_014251.3:c.1311+1G>A, NM_014251.3:c.1231-1G>A, NM_014251.3:c.1177+1G>A, NM_014251.3:c.1078C>T, NM_014251.3:c.852_855delTATG, NM_014251.3:c.674C>T, NM_014251.3:C. .674C>A, NM_014251.3:c. $615+5 G>A, N M \_014251.3: c .615+1 G>C$ |
| 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.538G>A, NM_014252.4:c.553_555delTTC, NM_014252.4:C.569G>A, NM_014252.4:C.658G>A, NM_014252.4:C.815C>T, NM_014252.4:c. $824 \mathrm{G} \times \mathrm{A}$ |
| SLC26A2 | Sulfate transporter-related osteochondrodysplasias, includes achondrogenesis type 1B, atelosteogenesis type 2, diastrophic dysplasia, and recessive multiple epiphyseal 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. 8335 C>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.1723delA, 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. $554 \mathrm{G}>C$, NM_000441.2:C..563T>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.918+2T>C, NM_000441.2:c.919-2A>G, NM_000441.2:c.961A>T, NM_000441.2:C.970A>T, NM_000441.2:c.1001G>T, NM_000441.2:c. $1001+1$ G>T, NM_000441.2:c.1003T>C, NM_000441.2:c.1034T>A, NM_000441.2:c.1061T>C, NM_000441.2:c.1151A>G, NM_000441.2:c.1174A>T, NM_000441.2:c.1197delT, NM_000441.2:c.1226G>A, NM_000441.2:c.1229C>T, NM_000441.2:c.1246A>C, |

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| GENE | DISEASE NAME | VAR NAME |
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|  |  |  <br>  <br>  |
| :---: | :---: | :---: |
| SLC37A4 | Glycogen storage disease lb | NM_001467.6:c.1243C>T, NM_001467.6:c.1063G>T, NM_001467.6:c.c.1042_1043delCT, NM_001467.6:c. $1016 \mathrm{G}>\mathrm{A}, \mathrm{NM} \_001467.6$ :c. $1015 \mathrm{G}>$ T, NM_001467.6:c. $8999 \mathrm{G}>\mathrm{A}$, NM_001467.6:c. C .26__708delGTG, NM_001467.6:c.593A>T, NM_001467.6:c.352T>C NM_001467.6:c.287G>A, NM_001467.6:c.1124-2_1124-1delAG, NM_001467.6:c. 836 G $\times$ A |
| SLC45A2 | Oculocutaneous albinism, 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.2216G>A, NM_001174089.2:c.2185_2192dupTATGACAC, 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_432deIGCTTCGCC |
| SMN1 | Spinal Muscular Atrophy | Exon 7del |
| SMPD1 | Niemann-Pick disease, types A/B | NM_000543.5:C..96G>A, NM_000543.5:c.c.100_116delGGCCTGGTGCTGGCGCT, NM_000543.5:c.103_107delCTGGT, NM_000543.5:.c.103_118delCTGGTGCTGGCGCTGG, <br>  <br> NM_000543.5:..551C>T, NM_000543.5:c.558_574delGCCCCCCAAACCCCCTA, <br> NM_000543.5:c. $5577 \mathrm{C}>$ T, NM_ 000543.5 c C.558_559insC, NM_000543.5:c.559delC, <br> NM_000543.5:c.573delT, NM_000543.5:c. $688 \mathrm{C}>$ T, NM_000543.5:c. $689 \mathrm{G}>\mathrm{A}$, <br>  <br> NM_000543.5:c. 742 C РA, NM_000543.5:c. $757 \mathrm{G} \times \mathrm{C}$, <br> NM_000543.5:c.781_803delAGCCTGTTGAGTGGGCTGGGCCC, NM_000543.5:c.788T>A, <br>  <br>  <br> NM_000543.5:c. $1267 C>T$, NM <br>  <br> NM_000543.5:c.1628delA, NM_000543.5:c.1805G>A, NM_000543.5:c.c.1826_1828delGCC |
| STAR | Lipoid Congenital Adrenal Hyperplasia | NM_000349.3:c.772CCT, NM_000349.3:c.7496>A, NM_000349.3:c.577C>T, NM_000349.3:.c.562C>T, NM_000349.3:c.559G>A, NM_000349.3:C.5456>T, NM_000349.3:c. $5456>$ A |
| STRC | Deafness, autosomal recessive 16 | NM_153700.2:c.5188C>T, NM_153700.2:C.5185C>T, NM_153700.2:C.5168_5171delTCT, NM_153700.2:C.4545+1G>C, NM_153700.2:C.3556C>T |
| TAT | Tyrosinemia, Type II | NM_000353.3:C. $1297 C>T$, NM_000353.3: :. $1249 C>$ T, NM_000353.3:C. $668 C>G$, NM 000353.3:c. 236-5A>G, NM 000353.3:c. $169 \subset>$ T |
| TCIRG1 | Osteopetrosis, autosomal recessive 1 | NM_006019.4:c.112_113delAG, NM_006019.4:c.179A>G, NM_006019.4:C. 1213G>A, NM_006019.4:c.1331G>T, NM_006019.4:c.1674-1G>A, NM_006019.4:c.2236+1G>A, NM_006019.4:C.2415-3C>G |
| TFR2 | Hemochromatosis, Type 3, TFR2-Related | NM_003227.4:c.2374G>A, NM_003227.4:c.2343G>A, NM_003227.4:c.2014C>T, NM_003227.4:c.1861_1872deIGCCGTGGCCCAG, 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_003227.4:c.1403G>A, NM_003227.4:c.1330G>A, NM_003227.4:c.1235_1237delACA, NM_003227.4:c.1186C>T, NM_003227.4:c.949C>T, NM_003227.4:c.840C>G, NM_003227.4:c.750C>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. $605 \mathrm{G}>\mathrm{A}$ |
| TMC1 | Deafness, autosomal recessive 7 | NM_138691.3:C.100C $>$ T, NM_138691.3:C.425G>A, NM_138691.3:3.454-16>C, NM_138691.3:c.1165C>T, NM_138691.3:c.1763+3A>G, NM_138691.3:C. 1842 C>A, NM_138691.3:c.1960A>G |
| TMEM216 | Joubert syndrome 2 | NM_001173990.3:c. 78 _81delGAAC, NM_001173990.3:c.218G>A, <br>  NM_001173990.3:C.341T>G |
| TPP1 | Ceroid lipofuscinosis, neuronal, 2/Spinocerebellar ataxia, autosomal recessive 7 | NM_000391.4:c. 13406>A, NM_000391.4:C. 1293T>C, NM_000391.4:C:8516>T, <br>  NM_000391.4:c.509-16>C, NM_000399.4:C:.141_144delGAGT |
| TREX1 | Aicardi-Goutieres syndrome 1 | NM_O33629.6:C.3416>A, NM_033629.6:C.490CT |
| TRIM32 | Bardet-Biedl syndrome 11 |  |

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## GENESeeker

List of variants analysed for the Geneseeker panel version 3.1, however, only variants classified as pathogenic and likely pathogenic at the time of analysis are reported.

## PATIENT 3.1

| GENE | DISEASE NAME | VAR NAME |
| :---: | :---: | :---: |
| TRIM37 | Mulibrey nanism syndrome | NM_015294.6:C.2212delG, NM_015294.6:G:2056CTT, NM_015294.6:C.1668-16 $\times$ C, NM_015294.6:C.1478_1479delAG, NM_015294.6:C.1411CTT, NM_015294.6:C.1346dupA, NM_015294.6:c.1037_1040dupAGAT, NM_015294.6:c.9656>T, NM_015294.6:c.7745СT, <br>  |
| TSEN54 | Pontocerebellar hypoplasia | NM_207346.3:c.670_671delAA, NM_207346.3:c.736C>T, NM_207346.3.3.c.887G>A, NM_207346.3:c. $919 \mathrm{G}>$ T, NM_207346.3:c.1027C>T, NM_207346.3: $с .1039 A>$ T |
| TSFM | Combined Oxidative <br> Phosphorylation Deficiency 3 | NM_005726.6:c.c__2delAT, NM_005726.6:c.21_22delGC, NM_005726.6:c.517delC, NM_005726.6:C.856C>T |
| TSHB | Congenital hypothyroidism | NM_000549.5:.944G>T, NM_000549.5:c.145G>A, NM_00054.5.5.2.205C>T |
| TSHR | Hypothyroidism, congenital, nongoitrous, 1 | 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. $484 \mathrm{C}>\mathrm{G}, \mathrm{NM}$ _000369.5:c. 500 T PA, 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. $104092 \mathrm{C}>$ T NM_001267550.2:c.102271C>T, NM_001267550.2:C. 98818 _98821deITCCA, NM_001267550.2:c.92373_92379delTGAATTC, NM_001267550.2: :c. $69344 C>G$, NM_001267550.2:c.60681dupT, NM_001267550.2:c.56648-1G>A, NM_001267550.2:c.52372delG, NM_001267550.2:c.48253delA, 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.25978G>A, NM_001267550.2:c.16881C>A, 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:.57567>A |
| TYR | Albinism, oculocutaneous, type IA | NM_000372.5:c.1A>G, NM_000372.5:c.115T>G, NM_000372.5:c.140G>A, NM_000372.5:c.164G>A, NM_000372.5:c.230G>A, NM_000372.5:c.242C>T NM_000372.5:c.265T>C, NM_000372.5:c.272G>A, NM_000372.5:c.285_286insA, NM_000372.5:c.325G>A, NM_000372.5:c.533G>A, NM_000372.5:c.568delG, NM_000372.5:c.616G>A, NM_000372.5:c.646T>A, NM_000372.5:c.650G>A, NM_000372.5:c.823G>T, NM_000372.5:c.896G>A, NM_000372.5:c.1012_1013insC, NM 000372.5:c.1111A>G, NM_000372.5:c.1118C>A, NM_000372.5:c.1146C>A, NM_000372.5:c.1147G>A, NM_000372.5:c.1163delT, NM_000372.5:c.1177delG, NM_000372.5:c.1209G>T, NM_000372.5:c.1217C>T, 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. 1466 1467insT, NM 000372.5:c. 1500 1501insC |
| TYRP1 | Oculocutaneous albinism, Type 3 | NM_000550.3:c. 10 Sdelt, NM_000550.3:c. $176 C>6$, NM_000550.3:. $4977>6$, <br>  NM_000550.3:c:.1120c>T, NM_000550.3: :c.1369_1370insCAGA, NM_000550.3:c:.1557T>6 |
| UGT1A1 | Crigler-Najjar Syndrome | NM_000463.3: .c.44T>G, NM_000463.3:C.524T>A, NM_000463.3.3.6.674T>6 |
| UGT1A8 | Crigler-Najjar Syndrome | NM_019076.5:c.1012C>T, NM_019076.5:c.1061A>G, NM_019076.5:c.1121G>T, NM 019076.5:c. 1198 C $>$ T, NM 019076.5:c. $1202 T>C$, NM 019076.5. C .1 1447T>G |
| USH1C | Usher syndrome, type 1C | NM_153676.4:c.2688_2695dupAATTCACC, NM_153676.4:c.2622_2623delCA, NM_153676.4:C.2547-1G>T, NM_153676.4:c.2362G>A, NM_153676.4:C. 3886 ©A, NM_153676.4:c.238delC, NM_153676.4:c.238dupC, NM_153676.4:c.216G>A |
| USH2A | Usher syndrome, type 2A | NM_206933.4:C.15520-16>A, NM_206933.4:C.15371delT, NM_206933.4:C.15089C>A, NM_206933.4:C.14926G>A, NM_206933.4:C.14803C>T, NM_206933.4:c.145197>C, NM_206933.4:c.14442C>A, NM_206933.4:c.13709delG, NM_206933.4:c.12574C>T, NM_206933.4:c.12234_12235delGA, NM_206933.4:c.11864G>A, NM_206933.4:c.11549-5_11549-4insT, NM_206933.4:c.10636G>A, NM_206933.4:c.10561T>C, NM_206933.4:c.10073G>A, NM_206933.4:c.9799T>C, NM_206933.4:c.8981G>A, NM_206933.4:c.8431C>A, NM_206933.4:c.7364G>A, NM_206933.4:c. $6862 G>T$, NM_206933.4: :. $6670 \mathrm{G}>$ T, NM_206933.4:c.5975A>G, NM_206933.4:c.5743_5744delAG, NM_206933.4:c.5573-2A>G, NM_206933.4:c.4338_4339delCT, <br> NM_206933.4:c.3491_3492delCT, NM_206933.4:C.2898delG, NM_206933.4:c.2299delG, NM_206933.4:c.2296T>C, NM_206933.4:c.2276G>T, NM_206933.4:C.2167+5G>A, NM_206933.4:C.C.2135delC, NM_206933.4:C.956G>A, NM_206933.4:c.920_923dupGCCA, NM_206933.4:c.820C>T, NM_206933.4:c.779T>G |
| VPS13A | Choreoacanthocytosis | NM_033305.3:c. $622 C$ CT, NM_033305.3:c.2898T>G, NM_033305.3: $:$. 3091 delG , NM_033305.3:c. $9109 C>T$, NM_033305.3: $\mathrm{C} .9275+1 \mathrm{G}>$ T |
| WAS | Wiskott-Aldrich syndrome | NM_000377.3:c.134C>T, NM_000377.3:c.173C>G, NM_000377.3:c.809T>C, NM_000377.3:c.814T>C, NM_000377.3:c..881T>C, NM_000377.3:C.c.1442T>A |
| WNT10A | Odontoonychodermal dysplasia/Schopf-SchulzPassarge syndrome/Tooth agenesis, selective, 4 |  NM_025216.3:C.697G>T |

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List of variants analysed for the Geneseeker panel version 3.1,
however, only variants classified as pathogenic and likely pathogenic at the time of analysis are reported.

## PATIENT 3.1

GENE DISEASE NAME $\quad$ VAR NAME

| XPA | Xeroderma pigmentosum Group A | 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 Type 15 | NM_015346.4:C:.5485-16>A, NM_015346.4: : C.5422CDT, NM_015346.4:C.4936C>T, NM_015346.4:. 4.4312C>T, NM_015346.4:C. 3642 _3643insCCACACTAG, <br>  NM 015346.4:C.2114dupC, NM 015346.4:C.1477C>T |

