

**Table 1: GeneScreen® - List of analysed genes and examined genetic diseases**

|    | <b>DISEASE NAME</b>  | <b>PhenoMIM</b> | <b>GENE</b>     |
|----|--|-----------------|-----------------|
| 1  | 17-alpha-hydroxylase/17,20-lyase deficiency                                    | 202110          | <i>CYP17A1</i>  |
| 2  | 17-beta-hydroxysteroid dehydrogenase X deficiency                              | 300438          | <i>HSD17B10</i> |
| 3  | 3-beta-hydroxysteroid dehydrogenase, type II, deficiency                       | 201810          | <i>HSD3B2</i>   |
| 4  | 3-hydroxy-3-methylglutaric aciduria  | 246450          | <i>HMGCL</i>    |
| 5  | 3-methylglutaconic aciduria type 1   | 250950          | <i>AUH</i>      |
| 6  | 3-methylglutaconic aciduria type 3   | 258501          | <i>OPA3</i>     |
| 7  | 46XY sex reversal 3  | 612965          | <i>NR5A1</i>    |
| 8  | 4-hydroxybutyric aciduria  | 271980          | <i>ALDH5A1</i>  |
| 9  | Aarskog-Scott syndrome   | 305400          | <i>FGD1</i>     |
| 10 | ABCD syndrome  | 600501          | <i>EDNRB</i>    |
| 11 | Achalasia-addisonianism-alacrimia syndrome                                     | 231550          | <i>AAAS</i>     |
| 12 | Achondrogenesis type 1B  | 600972          | <i>SLC26A2</i>  |
| 13 | Acyl-CoA dehydrogenase 9 deficiency  | 611126          | <i>ACAD9</i>    |
| 14 | Adrenal hyperplasia, congenital, due to 11-beta-hydroxylase deficiency         | 202010          | <i>CYP11B1</i>  |
| 15 | Adrenal insufficiency, congenital, with 46XY sex reversal, partial or complete | 613743          | <i>CYP11A1</i>  |
| 16 | Adrenocortical insufficiency   | 612965          | <i>NR5A1</i>    |
| 17 | Adrenoleukodystrophy   | 300100          | <i>ABCD1</i>    |
| 18 | Adult neuronal ceroid lipofuscinosis   | 256730          | <i>PPT1</i>     |
| 19 | Adult neuronal ceroid lipofuscinosis 10  | 610127          | <i>CTSD</i>     |
| 20 | Adult neuronal ceroid lipofuscinosis 4A  | 204300          | <i>CLN6</i>     |
| 21 | Aicardi-Goutières syndrome   | 225750          | <i>TREX1</i>    |
| 22 | Aicardi-Goutieres syndrome 2   | 610181          | <i>RNASEH2B</i> |
| 23 | Aicardi-Goutieres syndrome 3   | 610329          | <i>RNASEH2C</i> |
| 24 | Aicardi-Goutieres syndrome 4   | 610333          | <i>RNASEH2A</i> |
| 25 | Aicardi-Goutieres syndrome 5   | 612952          | <i>SAMHD1</i>   |
| 26 | Aldosteronism, glucocorticoid-remediable                                       | 103900          | <i>CYP11B1</i>  |
| 27 | Allan-Herndon-Dudley syndrome  | 300523          | <i>SLC16A2</i>  |
| 28 | Alpers syndrome  | 203700          | <i>POLG</i>     |
| 29 | Alpha-methylacyl-Coa Racemase deficiency                                       | 614307          | <i>AMACR</i>    |
| 30 | Alpha-thalassemia  | 604131          | <i>HBA1</i>     |
| 31 | Alpha-thalassemia myelodysplasia syndrome, somatic                             | 300448          | <i>ATRX</i>     |
| 32 | Alpha-thalassemia/mental retardation syndrome                                  | 301040          | <i>ATRX</i>     |
| 33 | Alport syndrome  | 301050          | <i>COL4A5</i>   |
| 34 | Alport syndrome autosomal recessive (gene COL4A3)                              | 203780          | <i>COL4A3</i>   |
| 35 | Alport syndrome autosomal recessive (gene COL4A4)                              | 203780          | <i>COL4A4</i>   |
| 36 | Alström syndrome   | 203800          | <i>ALMS1</i>    |
| 37 | Amish infantile epilepsy syndrome  | 609056          | <i>ST3GAL5</i>  |
| 38 | Amyotrophic lateral sclerosis 2, juvenile                                      | 205100          | <i>ALS2</i>     |
| 39 | Anauxetic dysplasia  | 607095          | <i>RMRP</i>     |
| 40 | Angelman syndrome  | 105830          | <i>UBE3A</i>    |
| 41 | Antenatal Bartter syndrome   | 241200          | <i>KCNJ1</i>    |
| 42 | Antenatal Bartter syndrome type 1  | 601678          | <i>SLC12A1</i>  |
| 43 | Antley-Bixler syndrome with genital anomalies and disordered steroidogenesis   | 201750          | <i>POR</i>      |

|    |   |        |                |
|----|---|--------|----------------|
| 44 | Aplasia/hypoplasia of limbs and pelvis  | 276820 | <i>WNT7A</i>   |
| 45 | Aplastic anemia   | 609135 | <i>NBN</i>     |
| 46 | Apparent mineralocorticoid excess   | 218030 | <i>HSD11B2</i> |
| 47 | Argininosuccinic aciduria   | 207900 | <i>ASL</i>     |
| 48 | Aromatic L-amino acid decarboxylase deficiency  | 608643 | <i>DDC</i>     |
| 49 | Arthrogyriposis - renal dysfunction - cholestasis   | 208085 | <i>VPS33B</i>  |
| 50 | Arthrogyriposis, renal dysfunction, and cholestasis 2   | 613404 | <i>VIPAR</i>   |
| 51 | Ataxia - oculomotor apraxia type 1  | 208920 | <i>APTX</i>    |
| 52 | Ataxia with vitamin E deficiency  | 277460 | <i>TTPA</i>    |
| 53 | Ataxia-telangiectasia   | 208900 | <i>ATM</i>     |
| 54 | Atelosteogenesis type II  | 256050 | <i>SLC26A2</i> |
| 55 | Autism, susceptibility to, X-linked 5   | 300847 | <i>RPL10</i>   |
| 56 | Autoimmune lymphoproliferative syndrome, type IA  | 601859 | <i>FAS</i>     |
| 57 | Autoimmune lymphoproliferative syndrome, type IB  | 601859 | <i>FASLG</i>   |
| 58 | Autoimmune lymphoproliferative syndrome, type II  | 603909 | <i>CASP10</i>  |
| 59 | Autoimmune polyendocrinopathy syndrome , type I, with or without reversible metaphyseal dysplasia | 240300 | <i>AIRE</i>    |
| 60 | Autosomal dominant Charcot-Marie-Tooth disease type 2K  | 607831 | <i>GDAP1</i>   |
| 61 | Autosomal recessive ataxia due to ubiquinone deficiency   | 612016 | <i>ADCK3</i>   |
| 62 | Autosomal recessive Charcot-Marie-Tooth disease with hoarseness                                   | 607706 | <i>GDAP1</i>   |
| 63 | Autosomal recessive distal spinal muscular atrophy type 4   | 611067 | <i>PLEKHG5</i> |
| 64 | Autosomal recessive dopa-responsive dystonia  | 605407 | <i>TH</i>      |
| 65 | Autosomal recessive hypophosphatemic rickets 1  | 241520 | <i>DMP1</i>    |
| 66 | Autosomal recessive hypophosphatemic rickets 2  | 613312 | <i>ENPP1</i>   |
| 67 | Autosomal recessive intermediate Charcot-Marie-Tooth disease type A                               | 608340 | <i>GDAP1</i>   |
| 68 | Autosomal recessive limb-girdle muscular dystrophy type 2I  | 607155 | <i>FKRP</i>    |
| 69 | Autosomal recessive limb-girdle muscular dystrophy type 2M  | 611588 | <i>FKTN</i>    |
| 70 | Autosomal recessive limb-girdle muscular dystrophy type C   | 613157 | <i>POMGNT1</i> |
| 71 | Autosomal recessive limb-girdle muscular dystrophy type C   | 609308 | <i>POMT1</i>   |
| 72 | Autosomal recessive limb-girdle muscular dystrophy type C   | 613158 | <i>POMT2</i>   |
| 73 | Autosomal recessive malignant osteopetrosis 1   | 259700 | <i>TCIRG1</i>  |
| 74 | Autosomal recessive malignant osteopetrosis 4   | 611490 | <i>CLCN7</i>   |
| 75 | Autosomal recessive nonsyndromic sensorineural deafness type DFNB12                               | 601386 | <i>CDH23</i>   |
| 76 | Autosomal recessive nonsyndromic sensorineural deafness type DFNB18                               | 602092 | <i>USH1C</i>   |
| 77 | Autosomal recessive nonsyndromic sensorineural deafness type DFNB1A (gene GJB2)                   | 220290 | <i>GJB2</i>    |
| 78 | Autosomal recessive nonsyndromic sensorineural deafness type DFNB2                                | 600060 | <i>MYO7A</i>   |
| 79 | Autosomal recessive polycystic kidney disease   | 263200 | <i>PKHD1</i>   |
| 80 | Autosomal recessive progressive external ophthalmoplegia  | 258450 | <i>POLG</i>    |
| 81 | Autosomal recessive spastic ataxia of Charlevoix-Saguenay   | 270550 | <i>SACS</i>    |
| 82 | Autosomal recessive spondylocostal dysostosis 1   | 277300 | <i>DLL3</i>    |
| 83 | Bannayan-Riley-Ruvalcaba syndrome   | 153480 | <i>PTEN</i>    |
| 84 | Barth syndrome  | 302060 | <i>TAZ</i>     |
| 85 | Becker muscular dystrophy   | 300376 | <i>DMD</i>     |
| 86 | Beckwith-Wiedemann syndrome   | 130650 | <i>NSD1</i>    |
| 87 | Beta-thalassemia  | 613985 | <i>HBB</i>     |
| 88 | Bethlem myopathy  | 158810 | <i>COL6A1</i>  |

|     |  |        |                 |
|-----|--|--------|-----------------|
| 89  | Bethlem myopathy   | 158810 | <i>COL6A2</i>   |
| 90  | Bethlem myopathy   | 158810 | <i>COL6A3</i>   |
| 91  | Bifunctional enzyme deficiency   | 261515 | <i>HSD17B4</i>  |
| 92  | Biotinidase deficiency   | 253260 | <i>BTBD</i>     |
| 93  | Björnstad syndrome   | 262000 | <i>BCS1L</i>    |
| 94  | Bloom syndrome   | 210900 | <i>BLM</i>      |
| 95  | Brachytelephalangi chondrodysplasia punctata                                       | 302950 | <i>ARSE</i>     |
| 96  | Brittle cornea syndrome  | 229200 | <i>ZNF469</i>   |
| 97  | Caffey disease   | 114000 | <i>COL1A1</i>   |
| 98  | Canavan disease  | 271900 | <i>ASPA</i>     |
| 99  | Carbamoylphosphate synthetase deficiency   | 237300 | <i>CPS1</i>     |
| 100 | Cardioencephalomyopathy, fatal infantile, due to cytochrome c oxidase deficiency 1 | 604377 | <i>SCO2</i>     |
| 101 | Cardioencephalomyopathy, fatal infantile, due to cytochrome c oxidase deficiency 2 | 615119 | <i>COX15</i>    |
| 102 | Carnitine deficiency, systemic primary   | 212140 | <i>SLC22A5</i>  |
| 103 | Carnitine palmitoyl transferase 1A deficiency                                      | 255120 | <i>CPT1A</i>    |
| 104 | Carnitine palmitoyl transferase II deficiency, infantile form                      | 600649 | <i>CPT2</i>     |
| 105 | Carnitine palmitoyl transferase II deficiency, neonatal form                       | 608836 | <i>CPT2</i>     |
| 106 | Carnitine-acylcarnitine translocase deficiency                                     | 212138 | <i>SLC25A20</i> |
| 107 | Carpenter syndrome   | 201000 | <i>RAB23</i>    |
| 108 | Cartilage-hair hypoplasia  | 250250 | <i>RMRP</i>     |
| 109 | Cataract - intellectual deficit - hypogonadism                                     | 212720 | <i>RAB3GAP2</i> |
| 110 | Cataract 40, X-linked  | 302200 | <i>NHS</i>      |
| 111 | Cerebellar ataxia - intellectual deficit - dysequilibrium syndrome                 | 224050 | <i>VLDLR</i>    |
| 112 | Cerebral dysgenesis-neuropathy-ichthyosis-palmoplantar keratoderma syndrome        | 609528 | <i>SNAP29</i>   |
| 113 | Cerebrotendinous xanthomatosis   | 213700 | <i>CYP27A1</i>  |
| 114 | Charcot-Marie-Tooth disease axonal type 2B1  | 605588 | <i>LMNA</i>     |
| 115 | Charcot-Marie-Tooth disease type 4A  | 214400 | <i>GDAPI</i>    |
| 116 | Charcot-Marie-Tooth disease type 4E  | 605253 | <i>EGR2</i>     |
| 117 | Charcot-Marie-Tooth disease type 4F  | 614895 | <i>PRX</i>      |
| 118 | Charcot-Marie-Tooth disease type 4H  | 609311 | <i>FGD4</i>     |
| 119 | Charcot-Marie-Tooth disease, type 1A   | 118220 | <i>PMP22</i>    |
| 120 | Charcot-Marie-Tooth disease, type 1B   | 118200 | <i>MPZ</i>      |
| 121 | Charcot-Marie-Tooth disease, type 1E   | 118300 | <i>PMP22</i>    |
| 122 | Charcot-Marie-Tooth disease, type 2I   | 607677 | <i>MPZ</i>      |
| 123 | Charcot-Marie-Tooth disease, type 2J   | 607736 | <i>MPZ</i>      |
| 124 | Chediak-Higashi syndrome   | 214500 | <i>LYST</i>     |
| 125 | Chilblain lupus 2  | 614415 | <i>SAMHD1</i>   |
| 126 | Childhood-onset hypophosphatasia   | 241510 | <i>ALPL</i>     |
| 127 | Cholestasis, benign recurrent intrahepatic   | 243300 | <i>ATP8B1</i>   |
| 128 | Cholestasis, benign recurrent intrahepatic, 2                                      | 605479 | <i>ABCB11</i>   |
| 129 | Cholestasis, intrahepatic, of pregnancy, 1   | 147480 | <i>ATP8B1</i>   |
| 130 | Cholestasis, intrahepatic, of pregnancy, 3   | 614972 | <i>ABCB4</i>    |
| 131 | Cholestasis, progressive familial intrahepatic 1                                   | 211600 | <i>ATP8B1</i>   |
| 132 | Cholestasis, progressive familial intrahepatic 2                                   | 601847 | <i>ABCB11</i>   |

|     |   |        |                |
|-----|---|--------|----------------|
| 133 | Cholestasis, progressive familial intrahepatic 3                        | 602347 | <i>ABCB4</i>   |
| 134 | Chondrodysplasia, Blomstrand type                                       | 215045 | <i>PTH1R</i>   |
| 135 | Citrullinemia type I  | 215700 | <i>ASS1</i>    |
| 136 | Classic congenital adrenal hyperplasia due to 21-hydroxylase deficiency | 201910 | <i>CYP21A2</i> |
| 137 | Classic galactosemia  | 230400 | <i>GALT</i>    |
| 138 | Classic maple syrup urine disease                                       | 248600 | <i>DBT</i>     |
| 139 | Classical homocystinuria  | 236200 | <i>CBS</i>     |
| 140 | COACH syndrome  | 216360 | <i>TMEM67</i>  |
| 141 | Cockayne syndrome type A  | 216400 | <i>ERCC8</i>   |
| 142 | Cockayne syndrome type B  | 133540 | <i>ERCC6</i>   |
| 143 | Coenzyme Q10 deficiency, primary, 5                                     | 614654 | <i>COQ9</i>    |
| 144 | Coffin-Lowry syndrome   | 303600 | <i>RPS6KA3</i> |
| 145 | COFS syndrome 1   | 214150 | <i>ERCC6</i>   |
| 146 | Cohen Syndrome type 1   | 216550 | <i>VPS13B</i>  |
| 147 | Cold-induced sweating syndrome  | 272430 | <i>CRLF1</i>   |
| 148 | Combined immunodeficiency with skin granulomas                          | 233650 | <i>RAG1</i>    |
| 149 | Combined immunodeficiency with skin granulomas                          | 233650 | <i>RAG2</i>    |
| 150 | Combined oxidative phosphorylation defect type 2                        | 610498 | <i>MRPS16</i>  |
| 151 | Combined oxidative phosphorylation defect type 5                        | 611719 | <i>MRPS22</i>  |
| 152 | Combined oxidative phosphorylation deficiency 4                         | 610678 | <i>TUFM</i>    |
| 153 | Combined pituitary hormone deficiencies, genetic forms                  | 182230 | <i>HESX1</i>   |
| 154 | Combined pituitary hormone deficiencies, genetic forms                  | 613038 | <i>POU1F1</i>  |
| 155 | Combined pituitary hormone deficiencies, genetic forms                  | 262600 | <i>PROPI</i>   |
| 156 | Combined pituitary hormone deficiency with spine abnormalities          | 221750 | <i>LHX3</i>    |
| 157 | Complete androgen insensitivity syndrome                                | 300068 | <i>AR</i>      |
| 158 | Complex I, mitochondrial respiratory chain, deficiency of               | 252010 | <i>NDUFS6</i>  |
| 159 | Congenital bile acid synthesis defect type 4                            | 214950 | <i>AMACR</i>   |
| 160 | Congenital disorder of glycosylation type 1a                            | 212065 | <i>PMM2</i>    |
| 161 | Congenital disorder of glycosylation type 1b                            | 602579 | <i>MPI</i>     |
| 162 | Congenital disorder of glycosylation type 1e                            | 608799 | <i>DPM1</i>    |
| 163 | Congenital disorder of glycosylation type 1j                            | 608093 | <i>DPAGT1</i>  |
| 164 | Congenital disorder of glycosylation type 2a                            | 212066 | <i>MGAT2</i>   |
| 165 | Congenital disorder of glycosylation type 2c                            | 266265 | <i>SLC35C1</i> |
| 166 | Congenital disorder of glycosylation type 2d                            | 607091 | <i>B4GALT1</i> |
| 167 | Congenital disorder of glycosylation type 2f                            | 603585 | <i>SLC35A1</i> |
| 168 | Congenital disorder of glycosylation type 1c                            | 603147 | <i>ALG6</i>    |
| 169 | Congenital disorder of glycosylation type 1k                            | 608540 | <i>ALG1</i>    |
| 170 | Congenital disorder of glycosylation, type 1d                           | 601110 | <i>ALG3</i>    |
| 171 | Congenital disorder of glycosylation, type 1f                           | 609180 | <i>MPDU1</i>   |
| 172 | Congenital disorder of glycosylation, type 1g                           | 607143 | <i>ALG12</i>   |
| 173 | Congenital disorder of glycosylation, type 1h                           | 608104 | <i>ALG8</i>    |
| 174 | Congenital disorder of glycosylation, type 1i                           | 607906 | <i>ALG2</i>    |
| 175 | Congenital disorder of glycosylation, type 1Ib                          | 606056 | <i>MOGS</i>    |
| 176 | Congenital disorder of glycosylation, type 1Ie                          | 608779 | <i>COG7</i>    |
| 177 | Congenital disorder of glycosylation, type 1Ig                          | 611209 | <i>COG1</i>    |
| 178 | Congenital disorder of glycosylation, type 1Ih                          | 611182 | <i>COG8</i>    |

|     |  |        |                 |
|-----|--|--------|-----------------|
| 179 | Congenital disorder of glycosylation, type II  | 608776 | <i>ALG9</i>     |
| 180 | Congenital disorder of glycosylation, type Im  | 610768 | <i>DOLK</i>     |
| 181 | Congenital disorder of glycosylation, type In  | 612015 | <i>RFT1</i>     |
| 182 | Congenital disorder of glycosylation, type Iq  | 612379 | <i>SRD5A3</i>   |
| 183 | Congenital fibrinogen deficiency (gene FGA)  | 202400 | <i>FGA</i>      |
| 184 | Congenital heart defects, nonsyndromic, 1, X-linked                                      | 306955 | <i>ZIC3</i>     |
| 185 | Congenital hereditary endothelial dystrophy type II                                      | 217700 | <i>SLC4A11</i>  |
| 186 | Congenital lipoid adrenal hyperplasia  | 201710 | <i>STAR</i>     |
| 187 | Congenital malabsorptive diarrhea due to paucity of enteroendocrine cells                | 610370 | <i>NEUROG3</i>  |
| 188 | Congenital muscular dystrophy type 1A  | 607855 | <i>LAMA2</i>    |
| 189 | Congenital muscular dystrophy type 1D  | 608840 | <i>LARGE</i>    |
| 190 | Congenital muscular dystrophy type 4B  | 613152 | <i>FKTN</i>     |
| 191 | Congenital muscular dystrophy type 5B  | 606612 | <i>FKRP</i>     |
| 192 | Congenital muscular dystrophy with cerebellar involvement                                | 613151 | <i>POMGNT1</i>  |
| 193 | Congenital muscular dystrophy with cerebellar involvement                                | 613155 | <i>POMT1</i>    |
| 194 | Congenital muscular dystrophy with cerebellar involvement                                | 613156 | <i>POMT2</i>    |
| 195 | Corneal dystrophy - perceptive deafness  | 217400 | <i>SLC4A11</i>  |
| 196 | Corpus callosum agenesis - neuronopathy  | 218000 | <i>SLC12A6</i>  |
| 197 | Corpus callosum hypoplasia-retardation-adducted thumbs-spasticity-hydrocephalus syndrome | 307000 | <i>L1CAM</i>    |
| 198 | Cowden syndrome 1  | 158350 | <i>PTEN</i>     |
| 199 | Craniofrontonasal dysplasia  | 304110 | <i>EFNB1</i>    |
| 200 | Cutis laxa, autosomal dominant 2   | 614434 | <i>FBLN5</i>    |
| 201 | Cutis laxa, autosomal recessive, type IA   | 219100 | <i>FBLN5</i>    |
| 202 | Cutis laxa, autosomal recessive, type IB   | 614437 | <i>EFEMP2</i>   |
| 203 | Cutis laxa, autosomal recessive, type IIA  | 219200 | <i>ATP6V0A2</i> |
| 204 | Cystic fibrosis; mucoviscidosis  | 219700 | <i>CFTR</i>     |
| 205 | Cystinosis   | 219800 | <i>CTNS</i>     |
| 206 | Deafness - encephaloneuropathy - obesity - valvulopathy                                  | 614651 | <i>PDSS1</i>    |
| 207 | Dejerine-Sottas disease  | 145900 | <i>MPZ</i>      |
| 208 | Dejerine-Sottas disease  | 145900 | <i>PMP22</i>    |
| 209 | Dent disease   | 300009 | <i>CLCN5</i>    |
| 210 | Dent disease 2   | 300555 | <i>OCRL</i>     |
| 211 | Desmosterolosis  | 602398 | <i>DHCR24</i>   |
| 212 | Diabetes mellitus, noninsulin-dependent  | 125853 | <i>ABCC8</i>    |
| 213 | Diabetes mellitus, permanent neonatal  | 606176 | <i>ABCC8</i>    |
| 214 | Diabetes mellitus, transient neonatal 2  | 610374 | <i>ABCC8</i>    |
| 215 | Diastrophic dwarfism   | 222600 | <i>SLC26A2</i>  |
| 216 | Dihydropyrimidine dehydrogenase deficiency   | 274270 | <i>DPYD</i>     |
| 217 | Dilated cardiomyopathy with ataxia   | 610198 | <i>DNAJC19</i>  |
| 218 | Donnai-Barrow syndrome   | 222448 | <i>LRP2</i>     |
| 219 | Duchenne muscular dystrophy  | 310200 | <i>DMD</i>      |
| 220 | Dyskeratosis congenita X-linked  | 305000 | <i>DKC1</i>     |
| 221 | Dystrophic epidermolysis bullosa pruriginosa   | 604129 | <i>COL7A1</i>   |
| 222 | Early infantile epileptic encephalopathy   | 308350 | <i>ARX</i>      |
| 223 | Early infantile epileptic encephalopathy   | 609304 | <i>SLC25A22</i> |

|     |   |        |                |
|-----|---|--------|----------------|
| 224 | Ectodermal dysplasia 1, hypohidrotic, X-linked  | 305100 | <i>EDA</i>     |
| 225 | Ectodermal dysplasia, hypohidrotic, with immune deficiency                              | 300291 | <i>IKBK</i>    |
| 226 | Ectodermal, dysplasia, anhidrotic, lymphedema and immunodeficiency                      | 300301 | <i>IKBK</i>    |
| 227 | Ehlers-Danlos syndrome type 6   | 225400 | <i>PLOD1</i>   |
| 228 | Ehlers-Danlos syndrome, cardiac valvular type   | 225320 | <i>COL1A2</i>  |
| 229 | Ehlers-Danlos syndrome, type I  | 130000 | <i>COL1A1</i>  |
| 230 | Ehlers-Danlos syndrome, type VIIA   | 130060 | <i>COL1A1</i>  |
| 231 | Eiken syndrome  | 600002 | <i>PTH1R</i>   |
| 232 | Ellis-van Creveld syndrome  | 225500 | <i>EVC2</i>    |
| 233 | Ellis-van Creveld syndrome  | 225500 | <i>EVC</i>     |
| 234 | Encephalopathy due to prosaposin deficiency   | 611721 | <i>PSAP</i>    |
| 235 | Epidermolysis bullosa simplex with muscular dystrophy                                   | 226670 | <i>PLEC</i>    |
| 236 | Epidermolysis bullosa simplex with pyloric atresia                                      | 612138 | <i>PLEC</i>    |
| 237 | Epilepsy, progressive myoclonic 2A (Lafora)   | 254780 | <i>EPM2A</i>   |
| 238 | Epilepsy, progressive myoclonic 2B (Lafora)   | 254780 | <i>NHLRC1</i>  |
| 239 | Epilepsy, pyridoxine-dependent  | 266100 | <i>ALDH7A1</i> |
| 240 | Epileptic encephalopathy, early infantile, 15   | 615006 | <i>ST3GAL3</i> |
| 241 | Epileptic encephalopathy, early infantile, 2  | 300672 | <i>CDKL5</i>   |
| 242 | Epileptic encephalopathy, early infantile, 8  | 300607 | <i>ARHGEF9</i> |
| 243 | Epileptic encephalopathy, early infantile, 9  | 300088 | <i>PCDH19</i>  |
| 244 | Escobar syndrome  | 265000 | <i>CHRNA</i>   |
| 245 | Ethylmalonic encephalopathy   | 602473 | <i>ETHE1</i>   |
| 246 | Exudative vitreoretinopathy 2, X-linked   | 305390 | <i>NDP</i>     |
| 247 | Fabry disease   | 301500 | <i>GLA</i>     |
| 248 | Failure of tooth eruption, primary  | 125350 | <i>PTH1R</i>   |
| 249 | Familial dysautonomia   | 223900 | <i>IKBKAP</i>  |
| 250 | Familial hypomagnesemia - hypercalciuria - nephrocalcinosis - severe ocular involvement | 248190 | <i>CLDN19</i>  |
| 251 | Familial Mediterranean fever  | 249100 | <i>MEFV</i>    |
| 252 | Fanconi anemia complementation group C  | 227645 | <i>FANCC</i>   |
| 253 | Fatal infantile lactic acidosis with methylmalonic aciduria                             | 245400 | <i>SUCLG1</i>  |
| 254 | Fatal mitochondrial disease due to combined oxidative phosphorylation deficiency 3      | 610505 | <i>TSM</i>     |
| 255 | Favism  | 134700 | <i>G6PD</i>    |
| 256 | Fertile eunuch syndrome   | 228300 | <i>GNRHR</i>   |
| 257 | Fetal akinesia deformation sequence   | 208150 | <i>RAPSN</i>   |
| 258 | Fetal akinesia deformation sequence   | 208150 | <i>DOK7</i>    |
| 259 | Fetal Gaucher disease   | 608013 | <i>GBA</i>     |
| 260 | FG syndrome 4   | 300422 | <i>CASK</i>    |
| 261 | Fibular hypoplasia or aplasia - femoral bowing - oligodactyly                           | 228930 | <i>WNT7A</i>   |
| 262 | Fraser syndrome (gene FRAS1)  | 219000 | <i>FRAS1</i>   |
| 263 | Fraser syndrome (gene FRAS2)  | 219000 | <i>FREM2</i>   |
| 264 | Free sialic acid storage disease, infantile form  | 269920 | <i>SLC17A5</i> |
| 265 | French-Canadian type Leigh syndrome   | 220111 | <i>LRPPRC</i>  |
| 266 | Fucosidosis   | 230000 | <i>FUCA1</i>   |
| 267 | Fukuyama congenital muscular dystrophy  | 253800 | <i>FKTN</i>    |
| 268 | Fumaric aciduria  | 606812 | <i>FH</i>      |

|     |   |        |                 |
|-----|---|--------|-----------------|
| 269 | Galactokinase deficiency with cataracts   | 230200 | <i>GALK1</i>    |
| 270 | Gallbladder disease 1   | 600803 | <i>ABCB4</i>    |
| 271 | Gaucher disease type 2  | 230900 | <i>GBA</i>      |
| 272 | Gaucher disease type 3  | 231000 | <i>GBA</i>      |
| 273 | Gaucher disease type 3C   | 231005 | <i>GBA</i>      |
| 274 | Geleophysic dysplasia 1   | 231050 | <i>ADAMTSL2</i> |
| 275 | Generalized junctional epidermolysis bullosa, non-Herlitz type  | 226650 | <i>COL17A1</i>  |
| 276 | Glutaric acidemia type 2 (gene ETFA)  | 231680 | <i>ETF A</i>    |
| 277 | Glutaric acidemia type 2 (gene ETFB)  | 231680 | <i>ETF B</i>    |
| 278 | Glutaric acidemia type 2 (gene ETFDH)   | 231680 | <i>ETF DH</i>   |
| 279 | Glutaryl-CoA dehydrogenase deficiency   | 231670 | <i>GCDH</i>     |
| 280 | Glutathione synthetase deficiency with 5-oxoprolinuria  | 266130 | <i>GSS</i>      |
| 281 | Glycine encephalopathy  | 605899 | <i>AMT</i>      |
| 282 | Glycine encephalopathy  | 605899 | <i>GCSH</i>     |
| 283 | Glycine encephalopathy  | 605899 | <i>GLDC</i>     |
| 284 | Glycogen storage disease due to acid maltase deficiency   | 232300 | <i>GAA</i>      |
| 285 | Glycogen storage disease due to glucose-6-phosphatase deficiency type 1a  | 232200 | <i>G6PC</i>     |
| 286 | Glycogen storage disease due to glucose-6-phosphatase deficiency type b   | 232220 | <i>SLC37A4</i>  |
| 287 | Glycogen storage disease due to glucose-6-phosphatase deficiency type c   | 232240 | <i>SLC37A4</i>  |
| 288 | Glycogen storage disease due to glycogen branching enzyme deficiency, childhood combined hepatic and myopathic form | 232500 | <i>GBE1</i>     |
| 289 | Glycogen storage disease due to glycogen debranching enzyme deficiency  | 232400 | <i>AGL</i>      |
| 290 | Glycogen storage disease due to muscle glycogen phosphorylase deficiency  | 232600 | <i>PYGM</i>     |
| 291 | GM1 gangliosidosis type 1   | 230500 | <i>GLB1</i>     |
| 292 | GM1 gangliosidosis type 2   | 230600 | <i>GLB1</i>     |
| 293 | GM1 gangliosidosis type 3   | 230650 | <i>GLB1</i>     |
| 294 | GRACILE syndrome  | 603358 | <i>BCS1L</i>    |
| 295 | Greenberg dysplasia   | 215140 | <i>LBR</i>      |
| 296 | Griscelli disease type 1  | 214450 | <i>MYO5A</i>    |
| 297 | Griscelli disease type 2  | 607624 | <i>RAB27A</i>   |
| 298 | Guanidinoacetate methyltransferase deficiency   | 612736 | <i>GAMT</i>     |
| 299 | Hemochromatosis, type 2A  | 602390 | <i>HFE2</i>     |
| 300 | Hemolytic anemia due to G6PD deficiency   | 300908 | <i>G6PD</i>     |
| 301 | Hemolytic anemia due to red cell pyruvate kinase deficiency   | 266200 | <i>PKLR</i>     |
| 302 | Hemophagocytic lymphohistiocytosis, familial, 2   | 603553 | <i>PRF1</i>     |
| 303 | Hemophagocytic lymphohistiocytosis, familial, 3   | 608898 | <i>UNC13D</i>   |
| 304 | Hemophagocytic lymphohistiocytosis, familial, 4   | 603552 | <i>STX11</i>    |
| 305 | Hemophagocytic lymphohistiocytosis, familial, 5   | 613101 | <i>STXBP2</i>   |
| 306 | Hemophilia A  | 306700 | <i>F8</i>       |
| 307 | Hemophilia B  | 306900 | <i>F9</i>       |
| 308 | Hepatic venoocclusive disease with immunodeficiency   | 235550 | <i>SP110</i>    |
| 309 | Hepatoencephalopathy due to combined oxidative phosphorylation deficiency type 1                                    | 609060 | <i>GFM1</i>     |
| 310 | Hereditary fructose intolerance   | 229600 | <i>ALDOB</i>    |
| 311 | Hereditary sensory and autonomic neuropathy type 4  | 256800 | <i>NTRK1</i>    |
| 312 | Hermansky-Pudlak syndrome 2   | 608233 | <i>AP3B1</i>    |
| 313 | Hermansky-pudlak syndrome 9   | 614171 | <i>PLDN</i>     |

|     |   |        |                 |
|-----|---|--------|-----------------|
| 314 | Heterotaxy, visceral, 1, X-linked   | 306955 | <i>ZIC3</i>     |
| 315 | Histidinemia  | 235800 | <i>HAMP</i>     |
| 316 | Holocarboxylase synthetase deficiency   | 253270 | <i>HLCS</i>     |
| 317 | Hoyeraal-Hreidarsson syndrome   | 300240 | <i>DKC1</i>     |
| 318 | Hyaline fibromatosis syndrome   | 228600 | <i>ANTXR2</i>   |
| 319 | Hyperammonemia due to N-acetylglutamate synthetase deficiency                 | 237310 | <i>NAGS</i>     |
| 320 | Hyper-IgE recurrent infection syndrome, autosomal recessive                   | 243700 | <i>DOCK8</i>    |
| 321 | Hyperinsulinemic hypoglycemia, familial, 1                                    | 256450 | <i>ABCC8</i>    |
| 322 | Hyperornithinemia-hyperammonemia-homocitrullinuria                            | 238970 | <i>SLC25A15</i> |
| 323 | Hypoglycemia of infancy, leucine-sensitive                                    | 240800 | <i>ABCC8</i>    |
| 324 | Hypogonadotropic hypogonadism 7 without anosmia                               | 146110 | <i>GNRHR</i>    |
| 325 | Hypomyelination - congenital cataract   | 610532 | <i>FAM126A</i>  |
| 326 | Hypoparathyroidism - intellectual deficit - dysmorphism syndrome              | 241410 | <i>TBCE</i>     |
| 327 | Hypophosphatemic rickets  | 300554 | <i>CLCN5</i>    |
| 328 | Ichthyosis follicularis - alopecia - photophobia                              | 308205 | <i>MBTPS2</i>   |
| 329 | Ichthyosis, autosomal recessive 4B (harlequin)                                | 242500 | <i>ABCA12</i>   |
| 330 | Ichthyosis, congenital, autosomal recessive 1                                 | 242300 | <i>TGMI</i>     |
| 331 | Ichthyosis, congenital, autosomal recessive 4A                                | 601277 | <i>ABCA12</i>   |
| 332 | Ichthyosis, leukocyte vacuoles, alopecia, and sclerosing cholangitis 607626   |        | <i>CLDN1</i>    |
| 333 | Immunodeficiency 10   | 612783 | <i>STIM1</i>    |
| 334 | Immunodeficiency 17, CD3 gamma deficient                                      | 615607 | <i>CD3G</i>     |
| 335 | Immunodeficiency 18, SCID variant   | 615615 | <i>CD3E</i>     |
| 336 | Immunodeficiency 19   | 615617 | <i>CD3D</i>     |
| 337 | Immunodeficiency 27A, mycobacteriosis, AR                                     | 209950 | <i>IFNGR1</i>   |
| 338 | Immunodeficiency 28, mycobacteriosis  | 614889 | <i>IFNGR2</i>   |
| 339 | Immunodeficiency 29, mycobacteriosis  | 614890 | <i>IL12B</i>    |
| 340 | Immunodeficiency 30   | 614891 | <i>IL12RB1</i>  |
| 341 | Immunodeficiency 31A, mycobacteriosis, autosomal dominant                     | 614892 | <i>STAT1</i>    |
| 342 | Immunodeficiency 31B, mycobacterial and viral infections, autosomal recessive | 613796 | <i>STAT1</i>    |
| 343 | Immunodeficiency 31C, autosomal dominant                                      | 614162 | <i>STAT1</i>    |
| 344 | Immunodeficiency 33   | 300636 | <i>IKBKG</i>    |
| 345 | Immunodeficiency 35   | 611521 | <i>TYK2</i>     |
| 346 | Immunodeficiency 9  | 612782 | <i>ORAI1</i>    |
| 347 | Immunodeficiency, common variable, 1  | 607594 | <i>ICOS</i>     |
| 348 | Immunodeficiency, common variable, 3  | 613493 | <i>CD19</i>     |
| 349 | Immunodeficiency-centromeric instability-facial anomalies syndrome 1          | 242860 | <i>DNMT3B</i>   |
| 350 | Immunodysregulation, polyendocrinopathy, and enteropathy, X-linked            | 304790 | <i>FOXP3</i>    |
| 351 | Incontinentia pigmenti, type II   | 308300 | <i>IKBKG</i>    |
| 352 | Infantile bilateral striatal necrosis   | 271930 | <i>NUP62</i>    |
| 353 | Infantile hypophosphatasia  | 241500 | <i>ALPL</i>     |
| 354 | Infantile neuroaxonal dystrophy 2A  | 256600 | <i>PLA2G6</i>   |
| 355 | Infantile neuroaxonal dystrophy 2B  | 610217 | <i>PLA2G6</i>   |
| 356 | Infantile onset spinocerebellar ataxia  | 271245 | <i>C10orf2</i>  |
| 357 | Interleukin 1 receptor antagonist deficiency                                  | 612852 | <i>IL1RN</i>    |
| 358 | Isolated CoQ-cytochrome C reductase deficiency                                | 124000 | <i>BCS1L</i>    |



|     |   |        |                  |
|-----|---|--------|------------------|
| 359 | Isolated growth hormone deficiency type III                     | 307200 | <i>BTK</i>       |
| 360 | Isolated thyroid-stimulating hormone deficiency                 | 275100 | <i>TSHB</i>      |
| 361 | Isovaleric acidemia   | 243500 | <i>IVD</i>       |
| 362 | Jeune syndrome  | 611263 | <i>IFT80</i>     |
| 363 | Johanson-Blizzard syndrome                                      | 243800 | <i>UBR1</i>      |
| 364 | Joubert syndrome 4  | 609583 | <i>NPHP1</i>     |
| 365 | Joubert syndrome 6  | 610688 | <i>TMEM67</i>    |
| 366 | Joubert syndrome with hepatic defect                            | 216360 | <i>RPGRIPI1L</i> |
| 367 | Joubert syndrome with ocular defect                             | 608629 | <i>AH11</i>      |
| 368 | Joubert syndrome with oculorenal defect 5                       | 610188 | <i>CEP290</i>    |
| 369 | Junctional epidermolysis bullosa - pyloric atresia              | 226730 | <i>ITGA6</i>     |
| 370 | Junctional epidermolysis bullosa with piloric atresia           | 226730 | <i>ITGB4</i>     |
| 371 | Junctional epidermolysis bullosa, Herlitz type (gene LAMA3)     | 226700 | <i>LAMA3</i>     |
| 372 | Junctional epidermolysis bullosa, Herlitz type (gene LAMB3)     | 226700 | <i>LAMA3</i>     |
| 373 | Junctional epidermolysis bullosa, Herlitz type (gene LAMC2)     | 226700 | <i>LAMC2</i>     |
| 374 | Junctional epidermolysis bullosa, non-Herlitz type              | 226650 | <i>ITGB4</i>     |
| 375 | Junctional epidermolysis bullosa, non-Herlitz type (gene LAMA3) | 226650 | <i>LAMA3</i>     |
| 376 | Junctional epidermolysis bullosa, non-Herlitz type (gene LAMB3) | 226650 | <i>LAMB3</i>     |
| 377 | Junctional epidermolysis bullosa, non-Herlitz type (gene LAMC2) | 226650 | <i>LAMC2</i>     |
| 378 | Juvenile neuronal ceroid lipofuscinosis 3                       | 204200 | <i>CLN3</i>      |
| 379 | Kahrizi syndrome  | 612713 | <i>SRD5A3</i>    |
| 380 | Kelley-Seegmiller syndrome                                      | 300323 | <i>HPRT1</i>     |
| 381 | Kennedy disease   | 313200 | <i>AR</i>        |
| 382 | Ketoacidosis due to beta-ketothiolase deficiency                | 203750 | <i>ACAT1</i>     |
| 383 | Krabbe disease  | 245200 | <i>GALC</i>      |
| 384 | Krabbe disease  | 611722 | <i>PSAP</i>      |
| 385 | Lacticacidemia due to PDX1 deficiency                           | 245349 | <i>PDHX</i>      |
| 386 | Late infantile neuronal ceroid lipofuscinosis                   | 610951 | <i>MFSD8</i>     |
| 387 | Late infantile neuronal ceroid lipofuscinosis 5                 | 256731 | <i>CLN5</i>      |
| 388 | Late infantile neuronal ceroid lipofuscinosis 6                 | 601780 | <i>CLN6</i>      |
| 389 | Late infantile neuronal ceroid lipofuscinosis 8                 | 600143 | <i>CLN8</i>      |
| 390 | Lathosterolosis   | 607330 | <i>SC5DL</i>     |
| 391 | Leigh syndrome  | 256000 | <i>BCS1L</i>     |
| 392 | Leigh syndrome  | 256000 | <i>DLD</i>       |
| 393 | Leigh syndrome  | 256000 | <i>NDUFAF2</i>   |
| 394 | Leigh syndrome  | 256000 | <i>NDUFS4</i>    |
| 395 | Leigh syndrome  | 256000 | <i>NDUFS7</i>    |
| 396 | Leigh syndrome due to cytochrome c oxidase deficiency           | 256000 | <i>COX15</i>     |
| 397 | Leigh syndrome due to mitochondrial complex I deficiency        | 256000 | <i>NDUFS3</i>    |
| 398 | Leigh syndrome due to mitochondrial complex I deficiency        | 256000 | <i>NDUFS8</i>    |
| 399 | Leigh syndrome due to mitochondrial COX4 deficiency             | 256000 | <i>COX10</i>     |
| 400 | Leigh syndrome with nephrotic syndrome                          | 607426 | <i>COQ2</i>      |
| 401 | Leigh syndrome with nephrotic syndrome                          | 614652 | <i>PDSS2</i>     |
| 402 | Leigh syndrome, due to COX deficiency                           | 256000 | <i>SURF1</i>     |
| 403 | Leigh syndrome, X-linked  | 308930 | <i>PDHA1</i>     |
| 404 | Leprechaunism   | 246200 | <i>INSR</i>      |

|     |  |        |                 |
|-----|--|--------|-----------------|
| 405 | Lesch-Nyhan syndrome   | 300322 | <i>HPRT1</i>    |
| 406 | Lethal acantholytic epidermolysis bullosa                                  | 609638 | <i>DSP</i>      |
| 407 | Lethal ataxia with deafness and optic atrophy                              | 301835 | <i>PRPS1</i>    |
| 408 | Lethal congenital contractural syndrome 2                                  | 607598 | <i>ERBB3</i>    |
| 409 | Lethal congenital contracture syndrome type 1                              | 253310 | <i>GLE1</i>     |
| 410 | Lethal osteosclerotic bone dysplasia                                       | 259775 | <i>FAM20C</i>   |
| 411 | Lethal restrictive dermopathy  | 275210 | <i>LMNA</i>     |
| 412 | Lethal restrictive dermopathy  | 275210 | <i>ZMPSTE24</i> |
| 413 | Leukocyte adhesion deficiency, type III                                    | 612840 | <i>FERMT3</i>   |
| 414 | Leydig cell adenoma, somatic, with precocious puberty                      | 176410 | <i>LHCGR</i>    |
| 415 | Leydig cell hypoplasia with hypergonadotropic hypogonadism                 | 238320 | <i>LHCGR</i>    |
| 416 | Leydig cell hypoplasia with pseudohermaphroditism                          | 238320 | <i>LHCGR</i>    |
| 417 | Lhermitte-Duclos syndrome  | 158350 | <i>PTEN</i>     |
| 418 | Limb girdle dystrophy with epidermolysis bullosa simplex                   | 613723 | <i>PLEC</i>     |
| 419 | Lissencephaly 3  | 611603 | <i>TUBA1A</i>   |
| 420 | Lissencephaly syndrome, Norman-Roberts type                                | 257320 | <i>RELN</i>     |
| 421 | Lissencephaly, X-linked  | 300067 | <i>DCX</i>      |
| 422 | Long chain 3-hydroxyacyl-CoA dehydrogenase deficiency                      | 609016 | <i>HADH</i>     |
| 423 | Luteinizing hormone resistance, female                                     | 238320 | <i>LHCGR</i>    |
| 424 | Lymphoproliferative syndrome, X-linked, 2                                  | 300635 | <i>XIAP</i>     |
| 425 | Macrocephaly/autism syndrome   | 605309 | <i>PTEN</i>     |
| 426 | Macroglobulinemia, Waldenstrom   | 153600 | <i>MYD88</i>    |
| 427 | Macular degeneration, age-related, 3                                       | 608895 | <i>FBLN5</i>    |
| 428 | Mandibuloacral dysplasia with type A lipodystrophy                         | 248370 | <i>LMNA</i>     |
| 429 | Mandibuloacral dysplasia with type B lipodystrophy                         | 608612 | <i>ZMPSTE24</i> |
| 430 | Mannosidosis, alpha-, types I and II                                       | 248500 | <i>MAN2B1</i>   |
| 431 | Maple syrup urine disease  | 248600 | <i>DLD</i>      |
| 432 | Maple syrup urine disease (gene BCKDHA)                                    | 248600 | <i>BCKDHA</i>   |
| 433 | Maple syrup urine disease (gene BCKDHB)                                    | 248600 | <i>BCKDHB</i>   |
| 434 | Marinesco-Sjögren syndrome   | 248800 | <i>SIL1</i>     |
| 435 | Masa syndrome  | 303350 | <i>LICAM</i>    |
| 436 | Meckel syndrome type 1   | 249000 | <i>MKS1</i>     |
| 437 | Meckel syndrome, type 5  | 611561 | <i>RPGRIP1L</i> |
| 438 | Medium chain acyl-CoA dehydrogenase deficiency                             | 201450 | <i>ACADM</i>    |
| 439 | Megalencephalic leukoencephalopathy with subcortical cysts                 | 604004 | <i>MLC1</i>     |
| 440 | Menkes disease   | 309400 | <i>ATP7A</i>    |
| 441 | Mental retardation and microcephaly with pontine and cerebellar hypoplasia | 300749 | <i>CASK</i>     |
| 442 | Mental retardation, autosomal recessive 1                                  | 249500 | <i>PRSS12</i>   |
| 443 | Mental retardation, autosomal recessive 12                                 | 611090 | <i>ST3GAL3</i>  |
| 444 | Mental retardation, autosomal recessive 13                                 | 613192 | <i>TRAPPC9</i>  |
| 445 | Mental retardation, autosomal recessive 5                                  | 611091 | <i>NSUN2</i>    |
| 446 | Mental retardation, autosomal recessive, 6                                 | 611092 | <i>GRIK2</i>    |
| 447 | Mental retardation, with or without nystagmus                              | 300422 | <i>CASK</i>     |
| 448 | Mental retardation, X-linked   | 300495 | <i>NLGN4X</i>   |
| 449 | Mental retardation, X-linked 19  | 300844 | <i>RPS6KA3</i>  |
| 450 | Mental retardation, X-linked 21/34   | 300143 | <i>IL1RAPL1</i> |

|     |  |        |                 |
|-----|--|--------|-----------------|
| 451 | Mental retardation, X-linked 30/47   | 300558 | <i>PAK3</i>     |
| 452 | Mental retardation, X-linked 41  | 300849 | <i>GDII</i>     |
| 453 | Mental retardation, X-linked 46  | 300436 | <i>ARHGEF6</i>  |
| 454 | Mental retardation, X-linked 63  | 300387 | <i>ACSL4</i>    |
| 455 | Mental retardation, X-linked 72  | 300271 | <i>RAB39B</i>   |
| 456 | Mental retardation, X-linked 9   | 309549 | <i>FTSJ1</i>    |
| 457 | Mental retardation, X-linked 90  | 300850 | <i>DLG3</i>     |
| 458 | Mental retardation, X-linked 93  | 300659 | <i>BRWD3</i>    |
| 459 | Mental retardation, X-linked 96  | 300802 | <i>SYP</i>      |
| 460 | Mental retardation, X-linked 97  | 300803 | <i>ZNF711</i>   |
| 461 | Mental retardation, X-linked syndromic 16  | 305400 | <i>FGD1</i>     |
| 462 | Mental retardation, X-linked syndromic 5   | 304340 | <i>APIS2</i>    |
| 463 | Mental retardation, X-linked syndromic, Christianson type  | 300243 | <i>SLC9A6</i>   |
| 464 | Mental retardation, X-linked syndromic, Nascimento-type  | 300860 | <i>UBE2A</i>    |
| 465 | Mental retardation, X-linked syndromic, Raymond type   | 300799 | <i>ZDHHC9</i>   |
| 466 | Mental retardation, X-linked syndromic, Turner type  | 300706 | <i>HUWE1</i>    |
| 467 | Mental retardation, X-linked, FRAXE type   | 309548 | <i>AFF2</i>     |
| 468 | Mental retardation, X-linked, Snyder-Robinson type   | 309583 | <i>SMS</i>      |
| 469 | Mental retardation, X-linked, syndromic 14   | 300676 | <i>UPF3B</i>    |
| 470 | Mental retardation, X-linked, syndromic 15 (Cabezas type)  | 300354 | <i>CUL4B</i>    |
| 471 | Mental retardation, X-linked, syndromic, Claes-Jensen type   | 300534 | <i>KDM5C</i>    |
| 472 | Mental retardation, X-linked, with cerebellar hypoplasia and distinctive facial appearance         | 300486 | <i>OPHN1</i>    |
| 473 | Mental retardation, X-linked, with isolated growth hormone deficiency                              | 300123 | <i>SOX3</i>     |
| 474 | Mental retardation-hypotonic facies syndrome, X-linked   | 309580 | <i>ATRX</i>     |
| 475 | Metachromatic leukodystrophy   | 250100 | <i>ARSA</i>     |
| 476 | Metachromatic leukodystrophy   | 249900 | <i>PSAP</i>     |
| 477 | Metaphyseal chondrodysplasia, Murk Jansen type   | 156400 | <i>PTH1R</i>    |
| 478 | Metaphyseal dysplasia without hypotrichosis  | 250460 | <i>RMRP</i>     |
| 479 | Methylmalonic acidemia with homocystinuria, type cblC  | 277400 | <i>MMACHC</i>   |
| 480 | Methylmalonic acidemia with homocystinuria, type cblD  | 277410 | <i>MMACHC</i>   |
| 481 | Mevalonic aciduria   | 610377 | <i>MVK</i>      |
| 482 | Micro syndrome   | 600118 | <i>RAB3GAP1</i> |
| 483 | Microphthalmia, syndromic 2  | 300166 | <i>BCOR</i>     |
| 484 | Mitochondrial complex I deficiency   | 252010 | <i>NDUFA1</i>   |
| 485 | Mitochondrial complex I deficiency   | 252010 | <i>NDUFAF2</i>  |
| 486 | Mitochondrial complex I deficiency   | 252010 | <i>NDUFAF4</i>  |
| 487 | Mitochondrial complex I deficiency   | 252010 | <i>NDUFS3</i>   |
| 488 | Mitochondrial complex I deficiency   | 252010 | <i>NDUFS4</i>   |
| 489 | Mitochondrial complex I deficiency   | 252010 | <i>NDUFV1</i>   |
| 490 | Mitochondrial complex IV deficiency  | 220110 | <i>COX10</i>    |
| 491 | Mitochondrial complex IV deficiency  | 220110 | <i>COX6B1</i>   |
| 492 | Mitochondrial complex IV deficiency  | 220110 | <i>FASTKD2</i>  |
| 493 | Mitochondrial complex IV deficiency  |        | <i>SCO1</i>     |
| 494 | Mitochondrial DNA depletion syndrome 1 (MNGIE type)  | 603041 | <i>TYMP</i>     |
| 495 | Mitochondrial DNA depletion syndrome 5 (encephalomyopathic with or without methylmalonic aciduria) | 612073 | <i>SUCLA2</i>   |

|     |  |        |                |
|-----|--|--------|----------------|
| 496 | Mitochondrial DNA depletion syndrome 8A (encephalomyopathic type with renal tubulopathy) | 612075 | <i>RRM2B</i>   |
| 497 | Mitochondrial DNA depletion syndrome 8B (MNGIE type)                                     | 612075 | <i>RRM2B</i>   |
| 498 | Mitochondrial DNA depletion syndrome, hepatocerebral form due to DGUOK deficiency 3      | 251880 | <i>DGUOK</i>   |
| 499 | Mitochondrial DNA depletion syndrome, myopathic form                                     | 609560 | <i>TK2</i>     |
| 500 | Mitochondrial neurogastrointestinal encephalomyopathy                                    | 613662 | <i>POLG</i>    |
| 501 | Mitochondrial respiratory chain complex III deficiency                                   | 124000 | <i>UQCRB</i>   |
| 502 | Mitochondrial respiratory chain complex III deficiency                                   | 124000 | <i>UQCRQ</i>   |
| 503 | Mitochondrial trifunctional protein deficiency   | 609015 | <i>HADHA</i>   |
| 504 | Mitochondrial trifunctional protein deficiency   | 609015 | <i>HADHB</i>   |
| 505 | Mohr-Tranebjaerg syndrome  | 304700 | <i>TIMM8A</i>  |
| 506 | Mowat-Wilson syndrome  | 235730 | <i>ZEB2</i>    |
| 507 | Mucopolipidosis type 2   | 252500 | <i>GNPTAB</i>  |
| 508 | Mucopolipidosis type 3   | 252600 | <i>GNPTAB</i>  |
| 509 | Mucopolipidosis type 4   | 252650 | <i>MCOLN1</i>  |
| 510 | Mucopolysaccharidosis Ih   | 607014 | <i>IDUA</i>    |
| 511 | Mucopolysaccharidosis Ih/s   | 607015 | <i>IDUA</i>    |
| 512 | Mucopolysaccharidosis Is   | 607016 | <i>IDUA</i>    |
| 513 | Mucopolysaccharidosis type 2   | 309900 | <i>IDS</i>     |
| 514 | Mucopolysaccharidosis type 3A (Sanfilippo syndrome type A)                               | 252900 | <i>SGSH</i>    |
| 515 | Mucopolysaccharidosis type 4B  | 253010 | <i>GLB1</i>    |
| 516 | Mucopolysaccharidosis type 6   | 253200 | <i>ARSB</i>    |
| 517 | Mucopolysaccharidosis type 7   | 253220 | <i>GUSB</i>    |
| 518 | Mucopolysaccharidosis type IIIB (Sanfilippo B)   | 252920 | <i>NAGLU</i>   |
| 519 | MULIBREY nanism  | 253250 | <i>TRIM37</i>  |
| 520 | Multiple epiphyseal dysplasia type 4   | 226900 | <i>SLC26A2</i> |
| 521 | Multiple pterygium syndrome, lethal type   | 253290 | <i>CHRNA1</i>  |
| 522 | Multiple pterygium syndrome, lethal type   | 253290 | <i>CHRND</i>   |
| 523 | Multiple pterygium syndrome, lethal type   | 253290 | <i>CHRNA1</i>  |
| 524 | Muscle-eye-brain disease   | 613153 | <i>FKRP</i>    |
| 525 | Muscle-eye-brain disease   | 613154 | <i>LARGE</i>   |
| 526 | Myasthenia gravis, neonatal transient  | 100730 | <i>CHRNA1</i>  |
| 527 | Myasthenia, limb-girdle, familial  | 254300 | <i>DOK7</i>    |
| 528 | Myasthenic syndrome, fast-channel congenital   | 608930 | <i>CHRNA1</i>  |
| 529 | Myasthenic syndrome, fast-channel congenital   | 608930 | <i>CHRND</i>   |
| 530 | Myasthenic syndrome, slow-channel congenital   | 601462 | <i>CHRNA1</i>  |
| 531 | Myasthenic syndrome, slow-channel congenital   | 601462 | <i>CHRND</i>   |
| 532 | Myopathy, tubular aggregate, 1   | 160565 | <i>STIM1</i>   |
| 533 | Myopathy, tubular aggregate, 2   | 615883 | <i>ORAI1</i>   |
| 534 | Nance-Horan syndrome   | 302350 | <i>NHS</i>     |
| 535 | Navajo neurohepatopathy  | 256810 | <i>MPV17</i>   |
| 536 | Nemaline myopathy 2  | 256030 | <i>NEB</i>     |
| 537 | Neonatal adrenoleukodystrophy (gene PEX12)   | 266510 | <i>PEX12</i>   |
| 538 | Neonatal adrenoleukodystrophy (gene PEX26)   | 614873 | <i>PEX26</i>   |
| 539 | Neonatal adrenoleukodystrophy (gene PEX5)  | 202370 | <i>PEX5</i>    |
| 540 | Nephrolithiasis, type I  | 310468 | <i>CLCN5</i>   |

|     |   |        |                  |
|-----|---|--------|------------------|
| 541 | Nephronophthisis 2, infantile   | 602088 | <i>INVS</i>      |
| 542 | Nephrotic syndrome, tupe 3  | 610725 | <i>PLCE1</i>     |
| 543 | Nephrotic syndrome, type 1  | 256300 | <i>NPHS1</i>     |
| 544 | Nephrotic syndrome, type 2  | 600995 | <i>NPHS2</i>     |
| 545 | Nephrotic syndrome, type 5, with or without ocular abnormalities      | 614199 | <i>LAMB2</i>     |
| 546 | Neurodegeneration due to 3-hydroxyisobutyryl-CoA hydrolase deficiency | 250620 | <i>HIBCH</i>     |
| 547 | Neurodegeneration due to cerebral folate transport deficiency         | 613068 | <i>FOLR1</i>     |
| 548 | Neuronal ceroid lipofuscinosis 2                                      | 204500 | <i>TPPI1</i>     |
| 549 | Neuropathy, congenital hypomyelinating                                | 605253 | <i>MPZ</i>       |
| 550 | Neutropenia, severe congenital 3, autosomal recessive                 | 610738 | <i>HAX1</i>      |
| 551 | Niemann-Pick disease type A   | 257200 | <i>SMPD1</i>     |
| 552 | Niemann-Pick disease type B   | 607616 | <i>SMPD1</i>     |
| 553 | Niemann-Pick disease type C1  | 257220 | <i>NPC1</i>      |
| 554 | Niemann-Pick disease type C2  | 607625 | <i>NPC2</i>      |
| 555 | Nijmegen breakage syndrome  | 251260 | <i>NBN</i>       |
| 556 | Norrie disease  | 310600 | <i>NDP</i>       |
| 557 | ntal retardation, autosomal recessive 7                               | 611093 | <i>TUSC3</i>     |
| 558 | Occipital horn syndrome   | 304150 | <i>ATP7A</i>     |
| 559 | Oculocerebrorenal syndrome  | 309000 | <i>OCRL</i>      |
| 560 | Omenn syndrome  | 603554 | <i>DCLRE1C</i>   |
| 561 | Omenn syndrome (gene RAG1)  | 603554 | <i>RAG1</i>      |
| 562 | Omenn syndrome (gene RAG2)  | 603554 | <i>RAG2</i>      |
| 563 | Opitz GBBB syndrome, type I   | 300000 | <i>MID1</i>      |
| 564 | Ornithine transcarbamylase deficiency                                 | 311250 | <i>OTC</i>       |
| 565 | Osteogenesis imperfecta type 8  | 610915 | <i>LEPRE1</i>    |
| 566 | Osteogenesis imperfecta type VII                                      | 610682 | <i>CRTAP</i>     |
| 567 | Osteogenesis imperfecta, type I                                       | 166200 | <i>COL1A1</i>    |
| 568 | Osteogenesis imperfecta, type II                                      | 166210 | <i>COL1A1</i>    |
| 569 | Osteogenesis imperfecta, type III                                     | 259420 | <i>COL1A1</i>    |
| 570 | Osteogenesis imperfecta, type IV                                      | 166220 | <i>COL1A1</i>    |
| 571 | Osteopetrosis with renal tubular acidosis                             | 259730 | <i>CA2</i>       |
| 572 | Osteopetrosis, autosomal recessive 5                                  | 259720 | <i>OSTM1</i>     |
| 573 | Paget disease, juvenile   | 239000 | <i>TNFRSF11B</i> |
| 574 | Panhypopituitarism, X-linked  | 312000 | <i>SOX3</i>      |
| 575 | Pantothenate kinase-associated neurodegeneration                      | 234200 | <i>PANK2</i>     |
| 576 | Partial androgen insensitivity syndrome                               | 312300 | <i>AR</i>        |
| 577 | Pelizaeus-Merzbacher-like due to GJC2 mutation                        | 608804 | <i>GJC2</i>      |
| 578 | Peroxisomal acyl-CoA oxidase deficiency                               | 264470 | <i>ACOX1</i>     |
| 579 | Peroxisome biogenesis disorder 11A (Zellweger)                        | 614883 | <i>PEX13</i>     |
| 580 | Peroxisome biogenesis disorder 11B                                    | 614885 | <i>PEX13</i>     |
| 581 | Peroxisome biogenesis disorder 6A (Zellweger)                         | 614870 | <i>PEX10</i>     |
| 582 | Peroxisome biogenesis disorder 6B                                     | 614871 | <i>PEX10</i>     |
| 583 | Perrault syndrome   | 233400 | <i>HSD17B4</i>   |
| 584 | Phenylketonuria   | 261600 | <i>PAH</i>       |
| 585 | Pierson syndrome  | 609049 | <i>LAMB2</i>     |
| 586 | Pitt-Hopkins syndrome   | 610954 | <i>TCF4</i>      |

|     |  |        |                |
|-----|--|--------|----------------|
| 587 | Plasminogen deficiency type 1  | 217090 | <i>PLG</i>     |
| 588 | Pontocerebellar hypoplasia type 2A   | 277470 | <i>TSEN54</i>  |
| 589 | Pontocerebellar hypoplasia type 4  | 225753 | <i>TSEN54</i>  |
| 590 | Porphyria, congenital erythropoietic   | 263700 | <i>UROS</i>    |
| 591 | Precocious puberty, male   | 176410 | <i>LHCGR</i>   |
| 592 | Primary lateral sclerosis, juvenile  | 606353 | <i>ALS2</i>    |
| 593 | Progressive epilepsy - intellectual deficit, Finnish type                      | 610003 | <i>CLN8</i>    |
| 594 | Properdin deficiency, X-linked   | 312060 | <i>CFP</i>     |
| 595 | Propionic acidemia (gene PCCA)   | 606054 | <i>PCCA</i>    |
| 596 | Propionic acidemia (gene PCCB)   | 606054 | <i>PCCB</i>    |
| 597 | Proteinuria, low molecular weight, with hypercalciuric nephrocalcinosis 308990 |        | <i>CLCN5</i>   |
| 598 | Proximal spinal muscular atrophy type 1  | 253300 | <i>SMN1</i>    |
| 599 | Proximal spinal muscular atrophy type 2  | 253550 | <i>SMN1</i>    |
| 600 | Proximal spinal muscular atrophy type 3  | 253400 | <i>SMN1</i>    |
| 601 | Proximal spinal muscular atrophy type 4  | 271150 | <i>SMN1</i>    |
| 602 | Pseudohermaphroditism, male, with gynecomastia                                 | 264300 | <i>HSD17B3</i> |
| 603 | Pseudohypoaldosteronism type 1, autosomal recessive (gene SCNN1A)              | 264350 | <i>SCNN1A</i>  |
| 604 | Pseudohypoaldosteronism type 1, autosomal recessive (gene SCNN1B)              | 264350 | <i>SCNN1B</i>  |
| 605 | Pseudohypoaldosteronism type 1, autosomal recessive (gene SCNN1G)              | 264350 | <i>SCNN1G</i>  |
| 606 | Pseudovaginal perineoscrotal hypospadias                                       | 264600 | <i>SRD5A2</i>  |
| 607 | Pycnodysostosis  | 265800 | <i>CTSK</i>    |
| 608 | Pyogenic bacterial infections, recurrent, due to MYD88 deficiency              | 612260 | <i>MYD88</i>   |
| 609 | Pyridoxal phosphate-responsive seizures  | 610090 | <i>PNPO</i>    |
| 610 | Pyruvate carboxylase deficiency  | 266150 | <i>PC</i>      |
| 611 | Pyruvate dehydrogenase phosphatase deficiency                                  | 608782 | <i>PDP1</i>    |
| 612 | Renal-hepatic-pancreatic dysplasia   | 208540 | <i>NPHP3</i>   |
| 613 | Renpenning syndrome  | 309500 | <i>PQBPI</i>   |
| 614 | Rett syndrome, congenital variant  | 613454 | <i>FOXP1</i>   |
| 615 | Rhizomelic chondrodysplasia punctata type 1                                    | 215100 | <i>PEX7</i>    |
| 616 | Rhizomelic chondrodysplasia punctata type 3                                    | 600121 | <i>AGPS</i>    |
| 617 | Rigid spine syndrome   | 602771 | <i>SEPNI</i>   |
| 618 | Roberts syndrome   | 269000 | <i>ESCO2</i>   |
| 619 | Roussy-Levy syndrome   | 180800 | <i>MPZ</i>     |
| 620 | Roussy-Levy syndrome   | 180800 | <i>PMP22</i>   |
| 621 | Sandhoff disease   | 268800 | <i>HEXB</i>    |
| 622 | Sanfilippo syndrome type C   | 252930 | <i>HGSNAT</i>  |
| 623 | Schneckenbecken dysplasia  | 269250 | <i>SLC35D1</i> |
| 624 | Schwartz-Jampel syndrome   | 255800 | <i>HSPG2</i>   |
| 625 | Seckel syndrome  | 210600 | <i>ATR</i>     |
| 626 | Senior-Loken syndrome  | 610189 | <i>CEP290</i>  |
| 627 | Senior-Loken syndrome  | 606996 | <i>NPHP4</i>   |
| 628 | Senior-Loken syndrome 1  | 266900 | <i>NPHP3</i>   |
| 629 | Senior-Loken syndrome 5  | 609254 | <i>IQCB1</i>   |
| 630 | Sensory ataxic neuropathy - dysarthria - ophthalmoparesis                      | 607459 | <i>POLG</i>    |
| 631 | Severe combined immunodeficiency due to adenosine deaminase deficiency         | 102700 | <i>ADA</i>     |
| 632 | Severe combined immunodeficiency due to complete RAG1/2 deficiency             | 601457 | <i>RAG1</i>    |

|     |   |        |                 |
|-----|---|--------|-----------------|
| 633 | Severe combined immunodeficiency due to complete RAG1/2 deficiency  | 601457 | <i>RAG2</i>     |
| 634 | Severe combined immunodeficiency due to DCLRE1C deficiency  | 602450 | <i>DCLRE1C</i>  |
| 635 | Severe combined immunodeficiency with microcephaly, growth retardation, and sensitivity to ionizing radiation | 611291 | <i>NHEJ1</i>    |
| 636 | Severe combined immunodeficiency with sensitivity to ionizing radiation                                       | 602450 | <i>LIG4</i>     |
| 637 | Severe generalized recessive dystrophic epidermolysis bullosa   | 226600 | <i>COL7A1</i>   |
| 638 | Severe neonatal-onset encephalopathy with microcephaly  | 300673 | <i>MECP2</i>    |
| 639 | Severe T-cell immunodeficiency - congenital alopecia - nail dystrophy   | 601705 | <i>FOXN1</i>    |
| 640 | Short-rib thoracic dysplasia 3 with or without polydactyly  | 613091 | <i>DYNC2H1</i>  |
| 641 | Shwachman-Diamond syndrome  | 260400 | <i>SBDS</i>     |
| 642 | Sialidosis, type I  | 256550 | <i>NEU1</i>     |
| 643 | Sialidosis, type II   | 256550 | <i>NEU1</i>     |
| 644 | Sickle cell anemia  | 603903 | <i>HBB</i>      |
| 645 | Simpson-Golabi-Behmel syndrome type 2   | 300209 | <i>OFD1</i>     |
| 646 | Simpson-Golabi-Behmel syndrome, type 1  | 312870 | <i>GPC3</i>     |
| 647 | Síndrome de Dursun  | 612541 | <i>G6PC3</i>    |
| 648 | Sjogren-Larsson syndrome  | 270200 | <i>ALDH3A2</i>  |
| 649 | Smith-Lemli-Opitz syndrome  | 270400 | <i>DHCR7</i>    |
| 650 | Sotos syndrome 1  | 117550 | <i>NSD1</i>     |
| 651 | Spastic paralysis, infantile onset ascending  | 607225 | <i>ALS2</i>     |
| 652 | Spastic paraplegia type 2, X-linked   | 312920 | <i>PLP1</i>     |
| 653 | Spinal muscular atrophy with respiratory distress   | 604320 | <i>IGHMBP2</i>  |
| 654 | Stocco dos Santos X-linked mental retardation syndrome  | 300434 | <i>SHROOM4</i>  |
| 655 | Stormorken syndrome   | 185070 | <i>STIM1</i>    |
| 656 | Stüve-Wiedemann syndrome  | 601559 | <i>LIFR</i>     |
| 657 | Subcortical laminal heteropia, X-linked   | 300067 | <i>DCX</i>      |
| 658 | Succinyl CoA:3-oxoacid CoA transferase deficiency   | 245050 | <i>OXCT1</i>    |
| 659 | Sudden infant death with dysgenesis of the testes syndrome  | 608800 | <i>TSPYL1</i>   |
| 660 | Sulfite oxidase deficiency due to molybdenum cofactor deficiency type A (gene MOCS1)                          | 252150 | <i>MOCS1</i>    |
| 661 | Sulfite oxidase deficiency due to molybdenum cofactor deficiency type A (gene MOCS2)                          | 252150 | <i>MOCS2</i>    |
| 662 | Sulfocysteinuria  | 272300 | <i>SUOX</i>     |
| 663 | Surfactant metabolism dysfunction, pulmonary, 1   | 265120 | <i>SFTPB</i>    |
| 664 | Surfactant metabolism dysfunction, pulmonary, 2   | 610913 | <i>SFTPC</i>    |
| 665 | Surfactant metabolism dysfunction, pulmonary, 3   | 610921 | <i>ABCA3</i>    |
| 666 | Syndromic microphthalmia type 9   | 601186 | <i>STRA6</i>    |
| 667 | Tay-Sachs disease   | 272800 | <i>HEXA</i>     |
| 668 | T-B+ severe combined immunodeficiency due to gamma chain deficiency   | 300400 | <i>IL2RG</i>    |
| 669 | T-B+ severe combined immunodeficiency due to JAK3 deficiency  | 600802 | <i>JAK3</i>     |
| 670 | T-B+ severe combined immunodeficiency, X-linked   | 312863 | <i>IL2RG</i>    |
| 671 | Tetra-amelia, autosomal recessive   | 273395 | <i>WNT3</i>     |
| 672 | Thrombocythemia 2   | 601977 | <i>MPL</i>      |
| 673 | Thrombocytopenia, congenital amegakaryocytic  | 604498 | <i>MPL</i>      |
| 674 | Thrombotic thrombocytopenic purpura, familial   | 274150 | <i>ADAMTS13</i> |
| 675 | Tooth agenesis, selective, X-linked 1   | 313500 | <i>EDA</i>      |
| 676 | Trichothiodystrophy, complementation group A  | 601675 | <i>GTF2H5</i>   |

|     |   |        |                 |
|-----|---|--------|-----------------|
| 677 | Tyrosinemia type 1  | 276700 | <i>FAH</i>      |
| 678 | Tyrosinemia type 2  | 276600 | <i>TAT</i>      |
| 679 | Tyrosinemia type 3  | 276710 | <i>HPD</i>      |
| 680 | Ullrich congenital muscular dystrophy                                   | 254090 | <i>COL6A1</i>   |
| 681 | Ullrich congenital muscular dystrophy                                   | 254090 | <i>COL6A2</i>   |
| 682 | Ullrich congenital muscular dystrophy                                   | 254090 | <i>COL6A3</i>   |
| 683 | Unverricht-Lundborg disease   | 254800 | <i>CSTB</i>     |
| 684 | Usher syndrome type 1   | 276900 | <i>MYO7A</i>    |
| 685 | Usher syndrome type 1C  | 276904 | <i>USH1C</i>    |
| 686 | Usher syndrome type 1G  | 606943 | <i>USH1G</i>    |
| 687 | Usher syndrome type 2A  | 276901 | <i>USH2A</i>    |
| 688 | Usher syndrome type 2C  | 605472 | <i>GPR98</i>    |
| 689 | Usher syndrome type 3A  | 276902 | <i>CLRN1</i>    |
| 690 | Very long chain acyl-CoA dehydrogenase deficiency                       | 201475 | <i>ACADVL</i>   |
| 691 | Vitamin B12-responsive methylmalonic acidemia type cblA                 | 251100 | <i>MMAA</i>     |
| 692 | Vitamin B12-responsive methylmalonic acidemia type cblB                 | 251110 | <i>MMAB</i>     |
| 693 | Vitamin B12-unresponsive methylmalonic acidemia type mut-               | 251000 | <i>MUT</i>      |
| 694 | Vitamin D-dependent rickets type 2A                                     | 277440 | <i>VDR</i>      |
| 695 | Vitamin D-dependent rickets, type I                                     | 264700 | <i>CYP27B1</i>  |
| 696 | Waardenburg-Shah syndrome 4A  | 277580 | <i>EDNRB</i>    |
| 697 | Waardenburg-Shah syndrome 4B  | 613265 | <i>EDN3</i>     |
| 698 | Walker-Warburg syndrome (gene POMGNT1)                                  | 253280 | <i>POMGNT1</i>  |
| 699 | Walker-Warburg syndrome (gene POMT1)                                    | 236670 | <i>POMT1</i>    |
| 700 | Walker-Warburg syndrome (gene POMT2)                                    | 613150 | <i>POMT2</i>    |
| 701 | Weyers acrodistal dysostosis  | 193530 | <i>EVC</i>      |
| 702 | Wilson disease  | 277900 | <i>ATP7B</i>    |
| 703 | Wiskott-Aldrich syndrome  | 301000 | <i>WAS</i>      |
| 704 | Wolcott-Rallison syndrome   | 226980 | <i>EIF2AK3</i>  |
| 705 | Wrinkly skin syndrome   | 278250 | <i>ATP6V0A2</i> |
| 706 | Xeroderma pigmentosum complementation group A                           | 278700 | <i>XPA</i>      |
| 707 | Xeroderma pigmentosum complementation group E                           | 278740 | <i>DDB2</i>     |
| 708 | Xeroderma pigmentosum, group C  | 278720 | <i>XPC</i>      |
| 709 | Xeroderma pigmentosum/Cockayne syndrome complex complementation group B | 610651 | <i>ERCC3</i>    |
| 710 | Xeroderma pigmentosum/Cockayne syndrome complex complementation group D | 278730 | <i>ERCC2</i>    |
| 711 | Xeroderma pigmentosum/Cockayne syndrome complex complementation group F | 278760 | <i>ERCC4</i>    |
| 712 | Xeroderma pigmentosum/Cockayne syndrome complex complementation group G | 278780 | <i>ERCC5</i>    |
| 713 | X-linked agammaglobulinemia   | 300755 | <i>BTK</i>      |
| 714 | X-linked centronuclear myopathy   | 310400 | <i>MTM1</i>     |
| 715 | X-linked Charcot-Marie-Tooth disease type 5                             | 311070 | <i>PRPS1</i>    |
| 716 | X-linked creatine transporter deficiency                                | 300352 | <i>SLC6A8</i>   |
| 717 | X-linked distal spinal muscular atrophy                                 | 300489 | <i>ATP7A</i>    |
| 718 | X-linked hyper-IgM syndrome   | 308230 | <i>CD40LG</i>   |
| 719 | X-linked intellectual deficit with marfanoid habitus                    | 309520 | <i>MED12</i>    |



|     |   |        |               |
|-----|---|--------|---------------|
| 720 | X-linked lymphoproliferative disease    | 308240 | <i>SH2D1A</i> |
| 721 | X-linked severe congenital neutropenia  | 300299 | <i>WNT10A</i> |
| 722 | X-linked spinal muscular atrophy type 2 | 301830 | <i>UBA1</i>   |
| 723 | Zellweger syndrome 1A                   | 214100 | <i>PEX1</i>   |
| 724 | Zellweger syndrome 7A                   | 614872 | <i>PEX26</i>  |