Cílená masivní paralelní sekvenace exonů a přilehlých intronových oblastí genů spojených s neuromuskulárními onemocněními, kardiomyopatiemi a arytmogenními syndromy (dle http://www.musclegenetable.fr/):

1. Svalové dystrofie: *ANO5*, *BVES*, *CACNA1S*, *CAPN3*, *CAV3*, *CAVIN1*, *COL6A1*, *COL6A2*, *COL6A3*, *CRPPA*, *DAG1*, *DMD*, *DNAJB6*, *DPM3*, *DTNA*, *DYSF*, *EMD*, *FHL1*, *FKRP*, *GAA*, *GGPS1*, *GMPPB*, *HMGCR*, *HNRNPDL*, *JAG2*, *LAMA2*, *LIMS2*, *LMNA*, *LRIF1*, *PLEC*, POGLUT1, *POMGNT1*, *POMGNT2*, *POMK*, *POMT1*, *POMT2*, *POPDC3*, *PYROXD1*, *SGCA*, *SGCB*, *SGCD*, *SGCG*, *SMCHD1*, *SNUPN*, *SYNE1*, *SYNE2*, *TCAP*, *TMEM43*, *TNPO3*, *TOR1AIP1*, *TRAPPC11*, *TRIM32*, *TTN*, *VCP*
2. Kongenitální svalové dystrofie: *ALG13*, *B3GALNT2*, *B4GAT1*, *BET1*, *COL6A1*, *COL6A2*, *COL6A3*, *COL12A1*, *CRPPA*, *DAG1*, *DNM2*, *DPM1*, *DPM2*, *DPM3*, *FKRP*, *FKTN*, *GMPPB*, *GOLGA2*, *GOSR2*, *CHKB*, INPP5K, *ITGA7*, *LAMA2*, *LARGE1*, *LMNA*, *MSTO1*, *POMGNT1*, *POMGNT2*, *POMK*, *POMT1*, *POMT2*, *RXYLT1*, *RYR1*, *SELENON*, *TCAP*, *TRAPPC11*, *TRIP4*
3. Kongenitální myopatie: *ACTA1*, *ACTN2*, *ASCC1*, *BIN1*, *CACNA1S*, *CCDC78*, *CFL2*, *CNTN1*, *DNM2*, *FXR1*, *HACD1*, *KBTBD13*, *KLHL40*, *KLHL41*, *LMOD3*, *MAP3K20*, *MEGF10*, *MTM1*, *MYBPC1*, *MYBPC3*, *MYH2*, *MYH7*, *MYL1*, *MYL2*, *MYMK*, MYO18B, *MYOD1*, *MYPN*, *NEB*, *PAX7*, *PLN*, *PYROXD1*, *RYR1*, *RYR3*, *SCN4A*, *SPEG*, *SPTBN4*, *STAC3*, *TNNC2*, *TNNT1*, *TNNT3*, *TPM2*, *TPM3*, *TTN*, *UNC45B*
4. Distální myopatie: *ACTN2*, *ADSS1*, *ANO5*, *CAV3*, *DNAJB6*, *DNM2*, *DYSF*, *FLNC*, *GNE*, *HSPB8*, *KLHL9*, *LDB3*, *MATR3*, *MYH7*, *MYOT*, *NEB*, *SMPX*, *SQSTM1*, *TIA1*, *TTN*, *VCP*
5. Další myopatie: *ACVR1*, *BAG3*, *CACNA1H*, *CASQ1*, *CAV3*, *CLN3*, *CRYAB*, *DES*, *DNAJB4*, *FHL1*, *FILIP1*, *FLNC*, *HNRNPA1*, *HNRNPA2B1*, *HRAS*, *ISCU*, *KY*, *LAMP2*, *LDB3*, *LRP12*, *MB*, *MICU1*, *MLIP*, *MSTN*, *MYOT*, *ORAI1*, *PABPN1*, *PLEC*, *PYROXD1*, *RYR1*, *SELENON*, *STIM1*, *SVIL*, *TRIM32*, *TRIM54*, *TRIM63*, *TTN*, *UNC45B*, *VCP*, *VMA21*, *ZC4H2*
6. Myotonické syndromy: *ATP2A1*, *CAV3*, *CLCN1*, *HSPG2*
7. Svalová onemocnění spojená s iontovými kanály: *ATP1A2*, *CACNA1A*, *CACNA1S*, *CLCN1*, *KCNA1*, *KCNE3*, *SCN4A*
8. Maligní hypertermie: *CACNA1S*, *RYR1;* geny mimo www.musclegenetable.fr: *ASPH*, *STAC3*, *TRPV1*, *CACNB1*
9. Kongenitální myastenické syndromy: *AGRN*, *ALG14*, *ALG2*, *COL13A1*, *COLQ*, *DES*, *DOK7*, *DPAGT1*, *GFPT1*, *GMPPB*, *CHAT*, *CHD8*, *CHRNA1*, *CHRNB1*, *CHRND*, *CHRNE*, *CHRNG*, *LAMA5*, *LAMB2*, *LRP4*, *MUSK*, *MYO9A*, *PLEC*, *PREPL*, *RAPSN*, *RPH3A*, *SCN4A*, SLC18A3, *SLC25A1*, SLC5A7, *SNAP25*, *SYT2*, *TOR1AIP1*, UNC13A, *VAMP1*
10. Onemocnění motorického neuronu: *AARS1*, *ALS2*, *ANG*, *ANXA11*, *ASAH1*, *ASCC1*, *ATP7A*, *ATXN2*, *BICD2*, *BSCL2*, *C9orf72*, *CAPN1*, *CNTNAP1*, *DCTN1*, *DNAJB2*, *DNM2*, *DYNC1H1*, *ERBB3*, *ERBB4*, *EXOSC3*, *EXOSC8*, *EXOSC9*, *FBXO38*, *FIG4*, *FUS*, *GARS1*, *GBF1*, *GLE1*, *HEXB*, *HINT1*, *HNRNPA1*, *HSPB1*, *HSPB3*, *HSPB8*, *CHCHD10*, *CHMP2B*, *IGHMBP2*, *KIF26B*, *KIF5A*, *LAS1L*, *LRP10*, *LRP12*, *MAPT*, *MATR3*, *MYH14*, *NEFH*, *NEK1*, *OPTN*, *PFN1*, *PIP5K1C*, *PLEKHG5*, *PRPH*, *PRUNE1*, *RBM7*, *REEP1*, *SETX*, *SIGMAR1*, *SLC25A46*, *SLC52A2*, *SLC52A3*, *SLC5A7*, *SOD1*, *SPG11*, *SPTAN1*, *SPTLC1*, *SQSTM1*, *SYT2*, *TARDBP*, *TBK1*, *TRIP4*, *TRPV4*, *TUBA4A*, *UBA1*, *UBQLN2*, *VAPB*, *VCP*, *VRK1*, *VWA1*, *WARS1*
11. Další neuromuskulární onemocnění: *COL25A1*, *DGUOK*, *ELP1*, *FDX2*, GFER, *CHCHD10*, *KIF21A*, *MGME1*, *MYH3*, *MYH8*, *OPA1*, *PHOX2A*, *POLG*, *POLG2*, *PUS1*, RNASEH1, *RRM2B*, *SGCE*, *SLC25A4*, *SUCLA2*, *SYNE1*, *TK2*, *TMEM65*, *TNNI2*, *TOR1A*, *TPM2*, *TTR*, *TUBB3*, *TWNK*, *YARS2*
12. Další geny (mimo www.musclegenetable.fr): svalové dystrofie a myopatie: *AMPD1*, *CTBP1*, *DNMT3B*, *GLA*, *GTPBP2*, *CHD7*, *LOXL4*, *MTMR14*, *MYF6*, *POPDC2*, *RBCK1*, *SIL1*, SUN1, SUN2; myastenické syndromy: *AK9*, *NGLY1*; onemocnění motorického neuronu: *CCNF*, *ELP3*, *EPHA4*, *PADI2*, *PSEN2*, *TAF15*; Ehlers-Danlosův syndrom (ve spojení s myopatií): *COL1A1*, *COL3A1*, *COL5A1*, *COL5A2*, *DSE*, *FKBP14*, *PLOD1*, *TNXB*
13. Artrogrypóza: *ADAMTS15*, *ADCY6*, *ADGRG6*, *AGRN*, *ALG3*, *ASCC1*, *BICD2*, *BLTP1*, *CACNA1E*, *CNTNAP1*, *DHCR24*, *DNM2*, *DOK7*, *ECEL1*, *ERBB3*, *ERCC1*, *ERCC5*, *ERCC6*, *ERGIC1*, *FBN1*, *FBN2*, *FBN3*, *FKBP10*, *GLE1*, *GLDN*, *CHST14*, *KAT6B*, *KIF26B*, *KIF5C*, *LGI4*, *MAGEL2*, *MET*, *MUSK*, *MYBPC1*, *MYBPC2*, *MYH3*, *MYH8*, *MYL11*, *MYOD1*, *NALCN*, *NEK9*, *NUP88*, *PI4KA*, *PIEZO2*, *PIP5K1C*, *PSD3*, *RAPSN*, *RYR1*, *SLC35A3*, *SMPD4*, *SYNE1*, *TNNI2*, *TNNT3*, *TPM2*, *TUBB2B*, *UNC50*, *VIPAS39*, *VPS33B*, *VPS8*, *ZBTB42*, *ZC4H2*
14. Dědičné kardiomyopatie a arytmogenní syndromy: *AARS2*, *ABCC9*, *ACTA2*, *ACTC1*, *ACTN2*, *ADAMTS2*, *AKAP9*, *ALPK3*, *ANK2*, *ANKRD1*, *ASPH*, *B4GALT7*, *BAG3*, *BAG5*, *BGN*, *CACNA1C*, *CACNA2D1*, *CACNB2*, *CALM1*, *CALM2*, *CALM3*, *CALR3*, *CASQ2*, *CAV3*, *CAVIN4*, *CDH2*, *COX15*, *CRYAB*, *CSRP3*, *CTF1*, *CTNNA3*, *DNAJC19*, *DES*, *DMD*, *DOLK*, *DSC2*, *DSG2*, *DSP*, *DPP6*, *DTNA*, *EMD*, *EYA4*, *FHL1*, *FHL2*, *FHOD3*, *FKTN*, *FLNA*, *FLNC*, *GAA*, *GATA4*, *GATAD1*, *GJA5*, *GPD1L*, *HCN4*, *HTRA1*, *CHD7*, *ILK*, *JPH2*, *JUP*, *KCNA5*, *KCND3*, *KCNE1*, *KCNE2*, *KCNE3*, *KCNE5*, *KCNH2*, *KCNJ2*, *KCNJ5*, *KCNJ8*, *KCNQ1*, *KLHL24*, *LAMA4*, *LAMP2*, *LDB3*, *LMNA*, *LMOD2*, *MIB1*, *MRPL3*, *MRPL44*, *MTO1*, *MYBPC3*, *MYH6*, *MYH7*, *MYH11*, *MYL2*, *MYL3*, *MYL4*, *MYLK2*, *MYOZ2*, *MYPN*, *NDUFAF1*, *NEBL*, *NEXN*, *NOTCH1*, *NPPA*, *NUP155*, *PDLIM3*, *PKP2*, *PLN*, *PRDM16*, *PRKAG2*, *PRKG1*, *PSEN2*, *RAF1*, *RANGRF*, *RBM20*, *RYR2*, *SCN1B*, *SCN2B*, *SCN3B*, *SCN4B*, *SCN5A*, *SCO2*, *SDHA*, *SGCD*, *SLMAP*, *SNTA1*, *SYNE1*, *TAFAZZIN*, *TBX5*, *TBX20*, *TCAP*, *TECRL*, *TGFB3*, *TGFBR1*, *TGFBR2*, *TMEM43*, *TMEM168*, *TMPO*, *TNNC1*, *TNNI3*, *TNNT2*, *TPM1*, *TRDN*, *TRPM4*, *TSFM*, *TTN*, *VCL*, *ZIC3*