



## Seznam genů zahrnutých ve virtuálním panelu - Fetální anomálie (FocusedExome)

### Virtuální panel zahrnuje analýzu 887 genů:

AAAS, ABCA12, ABCC6, ABCC6P2, ABCC9, ABHD5, ACAD9, ACADVL, ACAN, ACE, ACOX1, ACP5, ACTA1, ACTA2, ACTB, ACTC1, ACTG1, ACVR2B, ACY1, ADAMTS10, ADAMTS17, ADAMTSL2, ADAMTSL2, ADAR, ADNP, ADSL, AGK, AGL, AGPS, AHI1, AKT1, AKT3, ALDH18A1, ALDH1A3, ALDH3A2, ALDH7A1, ALDOA, ALG1, ALG12, ALG3, ALG6, ALG8, ALMS1, ALPL, ALX1, ALX3, ALX4, AMER1, AMT, ANKH, ANKRD11, ANTXR1, AP4E1, AR, ARHGAP31, ARID1A, ARID1B, ARL13B, ARL6, ARSA, ARSB, ARSL, ARX, ASAH1, ASCC1, ASNS, ASPA, ASPM, ASS1, ASXL1, ATIC, ATP6VOA2, ATP7A, ATRX, B3GALT6, B3GALT3, B4GALT7, BBS1, BBS10, BBS12, BBS2, BBS4, BBS5, BBS7, BBS9, BCAP31, BCL11A, BCL11B, BCOR, BCS1L, BFSP2, BHLHA9, BICD2, BIN1, BLM, BMP1, BMP2, BMP4, BMPER, BMPR1B, BPNT2, BRAF, BRAT1, BRCA2, BRIP1, BSND, BTB, BUB1B, CA2, CA8, CACNA1C, CACNA1C, CACNA1E, CASK, CBL, CC2D2A, CCBE1, CCDC103, CCDC39, CCDC40, CCNQ, CDAN1, CDC6, CDH1, CDH15, CDH3, CDKL5, CDKN1C, CDON, CDT1, CENPJ, CEP120, CEP152, CEP164, CEP290, CEP41, CEP57, CERT1, CFAP410, CFAP418, CFTR, CLCN7, CNOT3, CNTNAP2, COASY, COG1, COG4, COG7, COG8, COL10A1, COL11A1, COL11A2, COL18A1, COL1A1, COL1A2, COL2A1, COL3A1, COL4A1, COL4A2, COL6A1, COL6A2, COL6A3, COL9A1, COL9A2, COLEC11, COQ4, COQ9, COX7B, CPLANE1, CPT2, CREBBP, CRLF1, CRPPA, CRTAP, CRYAA, CRYBA1, CRYBA4, CRYBB1, CRYBB2, CRYBB3, CRYGC, CRYGD, CSN3, CSPP1, CTC1, CTCF, CTNBNB1, CTSB, CTSK, CUL4B, CUL7, CYP11A1, CYP11B1, CYP17A1, CYP1B1, CYP21A1P, CYP21A2, CYP21A2, CYP2U1, DAG1, DARS1, DCX, DDR2, DHCR24, DHCR7, DHFR, DHODH, DCHS1, DIS3L2, DKC1, DLL3, DMPK, DNAAF1, DNAAF11, DNAAF3, DNAH11, DNAH5, DNAH9, DNAI1, DNMT3A, DNMT3B, DOCK6, DOK7, DOLK, DPAGT1, DPM1, DSP, DSTYK, DYM, DYNC1H1, DYNC2H1, DYNC2I1, DYNC2I2, DYRK1A, DYRK1A, EBP, ECEL1, EDA, EDNRA, EDNRB, EFN1, EFTUD2, EHMT1, EIF2AK3, EIF2B2, EIF2B3, ELAC2, ELN, ELOVL4, EMD, EP300, EPG5, ERCC1, ERCC2, ERCC3, ERCC4, ERCC5, ERCC6, ERCC8, ERF, ESCO2, ETFB, ETV2, ETV4, ETV6, ETV7, ETV8, ETV9, ETV10, ETV11, ETV12, ETV13, ETV14, ETV15, ETV16, ETV17, ETV18, ETV19, ETV20, ETV21, ETV22, ETV23, ETV24, ETV25, ETV26, ETV27, ETV28, ETV29, ETV30, ETV31, ETV32, ETV33, ETV34, ETV35, ETV36, ETV37, ETV38, ETV39, ETV40, ETV41, ETV42, ETV43, ETV44, ETV45, ETV46, ETV47, ETV48, ETV49, ETV50, ETV51, ETV52, ETV53, ETV54, ETV55, ETV56, ETV57, ETV58, ETV59, ETV60, ETV61, ETV62, ETV63, ETV64, ETV65, ETV66, ETV67, ETV68, ETV69, ETV70, ETV71, ETV72, ETV73, ETV74, ETV75, ETV76, ETV77, ETV78, ETV79, ETV80, ETV81, ETV82, ETV83, ETV84, ETV85, ETV86, ETV87, ETV88, ETV89, ETV90, ETV91, ETV92, ETV93, ETV94, ETV95, ETV96, ETV97, ETV98, ETV99, ETV100, ETV101, ETV102, ETV103, ETV104, ETV105, ETV106, ETV107, ETV108, ETV109, ETV110, ETV111, ETV112, ETV113, ETV114, ETV115, ETV116, ETV117, ETV118, ETV119, ETV120, ETV121, ETV122, ETV123, ETV124, ETV125, ETV126, ETV127, ETV128, ETV129, ETV130, ETV131, ETV132, ETV133, ETV134, ETV135, ETV136, ETV137, ETV138, ETV139, ETV140, ETV141, ETV142, ETV143, ETV144, ETV145, ETV146, ETV147, ETV148, ETV149, ETV150, ETV151, ETV152, ETV153, ETV154, ETV155, ETV156, ETV157, ETV158, ETV159, ETV160, ETV161, ETV162, ETV163, ETV164, ETV165, ETV166, ETV167, ETV168, ETV169, ETV170, ETV171, ETV172, ETV173, ETV174, ETV175, ETV176, ETV177, ETV178, ETV179, ETV180, ETV181, ETV182, ETV183, ETV184, ETV185, ETV186, ETV187, ETV188, ETV189, ETV190, ETV191, ETV192, ETV193, ETV194, ETV195, ETV196, ETV197, ETV198, ETV199, ETV200, ETV201, ETV202, ETV203, ETV204, ETV205, ETV206, ETV207, ETV208, ETV209, ETV210, ETV211, ETV212, ETV213, ETV214, ETV215, ETV216, ETV217, ETV218, ETV219, ETV220, ETV221, ETV222, ETV223, ETV224, ETV225, ETV226, ETV227, ETV228, ETV229, ETV230, ETV231, ETV232, ETV233, ETV234, ETV235, ETV236, ETV237, ETV238, ETV239, ETV240, ETV241, ETV242, ETV243, ETV244, ETV245, ETV246, ETV247, ETV248, ETV249, ETV250, ETV251, ETV252, ETV253, ETV254, ETV255, ETV256, ETV257, ETV258, ETV259, ETV260, ETV261, ETV262, ETV263, ETV264, ETV265, ETV266, ETV267, ETV268, ETV269, ETV270, ETV271, ETV272, ETV273, ETV274, ETV275, ETV276, ETV277, ETV278, ETV279, ETV280, ETV281, ETV282, ETV283, ETV284, ETV285, ETV286, ETV287, ETV288, ETV289, ETV290, ETV291, ETV292, ETV293, ETV294, ETV295, ETV296, ETV297, ETV298, ETV299, ETV300, ETV301, ETV302, ETV303, ETV304, ETV305, ETV306, ETV307, ETV308, ETV309, ETV310, ETV311, ETV312, ETV313, ETV314, ETV315, ETV316, ETV317, ETV318, ETV319, ETV320, ETV321, ETV322, ETV323, ETV324, ETV325, ETV326, ETV327, ETV328, ETV329, ETV330, ETV331, ETV332, ETV333, ETV334, ETV335, ETV336, ETV337, ETV338, ETV339, ETV340, ETV341, ETV342, ETV343, ETV344, ETV345, ETV346, ETV347, ETV348, ETV349, ETV350, ETV351, ETV352, ETV353, ETV354, ETV355, ETV356, ETV357, ETV358, ETV359, ETV360, ETV361, ETV362, ETV363, ETV364, ETV365, ETV366, ETV367, ETV368, ETV369, ETV370, ETV371, ETV372, ETV373, ETV374, ETV375, ETV376, ETV377, ETV378, ETV379, ETV380, ETV381, ETV382, ETV383, ETV384, ETV385, ETV386, ETV387, ETV388, ETV389, ETV390, ETV391, ETV392, ETV393, ETV394, ETV395, ETV396, ETV397, ETV398, ETV399, ETV400, ETV401, ETV402, ETV403, ETV404, ETV405, ETV406, ETV407, ETV408, ETV409, ETV410, ETV411, ETV412, ETV413, ETV414, ETV415, ETV416, ETV417, ETV418, ETV419, ETV420, ETV421, ETV422, ETV423, ETV424, ETV425, ETV426, ETV427, ETV428, ETV429, ETV430, ETV431, ETV432, ETV433, ETV434, ETV435, ETV436, ETV437, ETV438, ETV439, ETV440, ETV441, ETV442, ETV443, ETV444, ETV445, ETV446, ETV447, ETV448, ETV449, ETV450, ETV451, ETV452, ETV453, ETV454, ETV455, ETV456, ETV457, ETV458, ETV459, ETV460, ETV461, ETV462, ETV463, ETV464, ETV465, ETV466, ETV467, ETV468, ETV469, ETV470, ETV471, ETV472, ETV473, ETV474, ETV475, ETV476, ETV477, ETV478, ETV479, ETV480, ETV481, ETV482, ETV483, ETV484, ETV485, ETV486, ETV487, ETV488, ETV489, ETV490, ETV491, ETV492, ETV493, ETV494, ETV495, ETV496, ETV497, ETV498, ETV499, ETV500, ETV501, ETV502, ETV503, ETV504, ETV505, ETV506, ETV507, ETV508, ETV509, ETV510, ETV511, ETV512, ETV513, ETV514, ETV515, ETV516, ETV517, ETV518, ETV519, ETV520, ETV521, ETV522, ETV523, ETV524, ETV525, ETV526, ETV527, ETV528, ETV529, ETV530, ETV531, ETV532, ETV533, ETV534, ETV535, ETV536, ETV537, ETV538, ETV539, ETV540, ETV541, ETV542, ETV543, ETV544, ETV545, ETV546, ETV547, ETV548, ETV549, ETV550, ETV551, ETV552, ETV553, ETV554, ETV555, ETV556, ETV557, ETV558, ETV559, ETV560, ETV561, ETV562, ETV563, ETV564, ETV565, ETV566, ETV567, ETV568, ETV569, ETV570, ETV571, ETV572, ETV573, ETV574, ETV575, ETV576, ETV577, ETV578, ETV579, ETV580, ETV581, ETV582, ETV583, ETV584, ETV585, ETV586, ETV587, ETV588, ETV589, ETV590, ETV591, ETV592, ETV593, ETV594, ETV595, ETV596, ETV597, ETV598, ETV599, ETV600, ETV601, ETV602, ETV603, ETV604, ETV605, ETV606, ETV607, ETV608, ETV609, ETV610, ETV611, ETV612, ETV613, ETV614, ETV615, ETV616, ETV617, ETV618, ETV619, ETV620, ETV621, ETV622, ETV623, ETV624, ETV625, ETV626, ETV627, ETV628, ETV629, ETV630, ETV631, ETV632, ETV633, ETV634, ETV635, ETV636, ETV637, ETV638, ETV639, ETV640, ETV641, ETV642, ETV643, ETV644, ETV645, ETV646, ETV647, ETV648, ETV649, ETV650, ETV651, ETV652, ETV653, ETV654, ETV655, ETV656, ETV657, ETV658, ETV659, ETV660, ETV661, ETV662, ETV663, ETV664, ETV665, ETV666, ETV667, ETV668, ETV669, ETV670, ETV671, ETV672, ETV673, ETV674, ETV675, ETV676, ETV677, ETV678, ETV679, ETV680, ETV681, ETV682, ETV683, ETV684, ETV685, ETV686, ETV687, ETV688, ETV689, ETV690, ETV691, ETV692, ETV693, ETV694, ETV695, ETV696, ETV697, ETV698, ETV699, ETV700, ETV701, ETV702, ETV703, ETV704, ETV705, ETV706, ETV707, ETV708, ETV709, ETV710, ETV711, ETV712, ETV713, ETV714, ETV715, ETV716, ETV717, ETV718, ETV719, ETV720, ETV721, ETV722, ETV723, ETV724, ETV725, ETV726, ETV727, ETV728, ETV729, ETV730, ETV731, ETV732, ETV733, ETV734, ETV735, ETV736, ETV737, ETV738, ETV739, ETV740, ETV741, ETV742, ETV743, ETV744, ETV745, ETV746, ETV747, ETV748, ETV749, ETV750, ETV751, ETV752, ETV753, ETV754, ETV755, ETV756, ETV757, ETV758, ETV759, ETV760, ETV761, ETV762, ETV763, ETV764, ETV765, ETV766, ETV767, ETV768, ETV769, ETV770, ETV771, ETV772, ETV773, ETV774, ETV775, ETV776, ETV777, ETV778, ETV779, ETV780, ETV781, ETV782, ETV783, ETV784, ETV785, ETV786, ETV787, ETV788, ETV789, ETV790, ETV791, ETV792, ETV793, ETV794, ETV795, ETV796, ETV797, ETV798, ETV799, ETV800, ETV801, ETV802, ETV803, ETV804, ETV805, ETV806, ETV807, ETV808, ETV809, ETV810, ETV811, ETV812, ETV813, ETV814, ETV815, ETV816, ETV817, ETV818, ETV819, ETV820, ETV821, ETV822, ETV823, ETV824, ETV825, ETV826, ETV827, ETV828, ETV829, ETV830, ETV831, ETV832, ETV833, ETV834, ETV835, ETV836, ETV837, ETV838, ETV839, ETV840, ETV841, ETV842, ETV843, ETV844, ETV845, ETV846, ETV847, ETV848, ETV849, ETV850, ETV851, ETV852, ETV853, ETV854, ETV855, ETV856, ETV857, ETV858, ETV859, ETV860, ETV861, ETV862, ETV863, ETV864, ETV865, ETV866, ETV867, ETV868, ETV869, ETV870, ETV871, ETV872, ETV873, ETV874, ETV875, ETV876, ETV877, ETV878, ETV879, ETV880, ETV881, ETV882, ETV883, ETV884, ETV885, ETV886, ETV887, ETV888, ETV889, ETV890, ETV891, ETV892, ETV893, ETV894, ETV895, ETV896, ETV897, ETV898, ETV899, ETV900, ETV901, ETV902, ETV903, ETV904, ETV905, ETV906, ETV907, ETV908, ETV909, ETV910, ETV911, ETV912, ETV913, ETV914, ETV915, ETV916, ETV917, ETV918, ETV919, ETV920, ETV921, ETV922, ETV923, ETV924, ETV925, ETV926, ETV927, ETV928, ETV929, ETV930, ETV931, ETV932, ETV933, ETV934, ETV935, ETV936, ETV937, ETV938, ETV939, ETV940, ETV941, ETV942, ETV943, ETV944, ETV945, ETV946, ETV947, ETV948, ETV949, ETV950, ETV951, ETV952, ETV953, ETV954, ETV955, ETV956, ETV957, ETV958, ETV959, ETV960, ETV961, ETV962, ETV963, ETV964, ETV965, ETV966, ETV967, ETV968, ETV969, ETV970, ETV971, ETV972, ETV973, ETV974, ETV975, ETV976, ETV977, ETV978, ETV979, ETV980, ETV981, ETV982, ETV983, ETV984, ETV985, ETV986, ETV987, ETV988, ETV989, ETV990, ETV991, ETV992, ETV993, ETV994, ETV995, ETV996, ETV997, ETV998, ETV999, ETV1000.



## **Seznam genů zahrnutých ve virtuálním panelu - Fetální anomálie (FocusedExome)**

RFX6, RIPK4, RIT1, RMRP, RNASEH2A, RNASEH2B, RNASEH2C, RNASET2, RNU4ATAC, ROBO1, ROGDI, ROR2, RPGRIP1L, RPL11, RPL5, RPS10-NUDT3, RPS19, RPS26, RPS6KA3, RRM2B, RTEL1, RTTN, RUNX2, RXYLT1, RYR1, SALL1, SALL4, SAMD9, SAMHD1, SATB2, SBDS, SC5D, SCARF2, SCN2A, SCN4A, SCO2, SDCCAG8, SEC23B, SEPSECS, SETBP1, SETD5, SF3B4, SFTPA2, SH3PXD2B, SHH, SHOC2, SIL1, SIX3, SIX5, SKI, SLC12A1, SLC12A6, SLC16A2, SLC17A5, SLC25A20, SLC25A38, SLC26A2, SLC26A3, SLC27A4, SLC2A10, SLC33A1, SLC35A2, SLC35C1, SLC35D1, SLX4, SMAD3, SMAD4, SMARCA2, SMARCA4, SMARCB1, SMC1A, SMC3, SMCHD1, SMO, SMOC1, SMOX, SMPD1, SOS1, SOST, SOX10, SOX17, SOX2, SOX3, SOX9, SPAG1, SPG11, SPRED1, SRCAP, SRD5A2, SRD5A3, SRY, STAMBP, STAR, STRA6, SUCLG1, SUMF1, TAB2, TAF1, TAFAZZIN, TALDO1, TBC1D20, TBC1D23, TBC1D24, TBCE, TBL1XR1, TBX1, TBX15, TBX20, TBX3, TBX4, TBX5, TBX6, TCF12, TCF4, TCF4, TCF7L2, TCIRG1, TCOF1, TCTN1, TCTN2, TCTN3, TFAP2A, TFAP2B, TGFB2, TGFB3, TGFBR1, TGFBR2, TGIF1, TGM1, THRA, TINF2, TMCO1, TMEM138, TMEM165, TMEM231, TMEM237, TMEM67, TNNT2, TNNT1, TP63, TPM2, TPM3, TRAPPC9, TREX1, TRIM37, TRIP11, TRIP12, TRPS1, TRPV4, TSC1, TSC2, TSEN54, TTC21B, TTC37, TTC7A, TTC8, TTN, TUBA1A, TUBA1A, TUBA8, TUBB2B, TUBB4A, TUBGCP6, TWIST1, TWIST2, UBA1, UBR1, UMPS, UROS, VCAM1, VIPAS39, VLDLR, VPS13B, VPS33B, VSX2, WDPCP, WDR19, WDR35, WDR62, WNT10B, WNT5A, WNT7A, WRAP53, WT1, WWTR1, XRCC4, XYLT1, YY1, ZBTB18, ZC4H2, ZEB2, ZFP57, ZIC1, ZIC2, ZIC3, ZMPSTE24