

Supp Table 1: MDS Patient Disease Charecteristics

Sample ID	Age	Sex	HGB	WBC	PLTs x 10³	Disease Stage
MDS1	80	M	10.2	730	27	RCMD
MDS5	70	F	10.4	10390	37	CMML
MDS7	86	M	10.2	2080	47	RAEB-2
MDS11	91	M	8.8	910	7	RAEB-1
MDS14	71	M	8.6	2810	36	RAEB-1
MDS15	87	M	6.3	2100	179	RA
MDS16	90	F	8	4010	96	RAEB-2
MDS18	34	M	8.7	2400	7	Hypoplastic MDS
MDS19	53	M	11.4	2900	174	RAEB-1
MDS20	66	F	12.7	1470	151	RCUD
MDS21	41	F	11.5	4000	150	RA
MDS22	69	M	8.5	3050	40	RAEB-2
MDS23	55	M	10.2	3450	70	RCMD

1 Supp Table 2: Pathways affected by hypermethylation in MDS stroma

ID	Top Diseases and Functions	Molecules in Network
1	Cellular Assembly and Organization, Cellular Function and Maintenance, Cancer	ABL1,ADAM19,AFAP1,AKT2,ARHGAP17,ARRDC1,COL14A1,HTT,ICAM1,IRF2BP1,JUNB,KEAP1,MAP1LC3A,MARK2,NF2,SEMA7A,SFRP1,SMARCB1,SYNPO2,TADA2B,TBC1D16,ZFYVE19
2	Developmental Disorder, Hematological Disease, Hereditary Disorder	C16orf58,C19orf47,CECR5,CPNE2,PIEZO1,SH3RF3,SYDE1,THG1L,TMEM132A,TTC28,TTYH3,ZZEF1
3	DNA Replication, Recombination, and Repair, Energy Production, Nucleic Acid Metabolism	ANKRD6,ATF5,CHD1L,CPSF1,CST6,DHX30,DHX34,DNA2,DOCK1,EPHB3,FXR2,GIPC1,ITGA7,PEX6,TIMM44,TUFM,WIZ
4	Cellular Assembly and Organization, Endocrine System Development and Function, Protein Synthesis	ACADS,CCDC8,ECE1,FBXO42,GBF1,PES1,PPIL2,RBM42,RGS16,RRS1,SGK223,SLC1A5,SNX18,TALDO1
5	Protein Degradation, Protein Synthesis, Organ Morphology	AHCY,ANKS6,AP5B1,BEND5,C21orf33,COL5A3,ENKD1,LIMS2,LMCD1,PDLIM7,SCN8A,SEPT9,SH3BP5L

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Supp Table 3: Genes that are methylated and underexpressed in MDS stroma

SEQ_ID	NAME	CHR	TXSTART	TXEND	DESCRIPTION
HSAP0406S00031389	S82847	chr19	10256604	10256844	CDS; sICAM-1; sICAM-1; sICAM-1=ICAM-1 soluble variant {alternatively spliced, exon 6 to exon 7} [human, placenta, mRNA Partial, 135 nt].
HSAP0406S00016193	AK090471	chr8	145674247	145698311	CDS; FLJ00392; FLJ00392 protein; Homo sapiens mRNA for FLJ00392 protein.
HSAP0406S00006895	AF161443	chr3	51671899	51672650	CDS; N/A; HSPC325; Homo sapiens HSPC325 mRNA, partial cds.
HSAP0406S00025534	BC023653	chr15	38550817	38552647	CDS; D4ST1; D4ST1 protein; Homo sapiens dermatan 4 sulfotransferase 1, mRNA (cDNA clone IMAGE:4549589), partial cds.
HSAP0406S00025535	AY358446	chr15	38550807	38552647	CDS; N/A; LMFA1925; Homo sapiens clone DNA87974 LMFA1925 (UNQ1925) mRNA, complete cds.
HSAP0406S00025533	AB066595	chr15	38550488	38552647	CDS; hD4ST1; dermatan 4-sulfotransferase; Homo sapiens hD4ST mRNA for dermatan 4-sulfotransferase, complete cds.
HSAP0406S00033001	NM_00100430	chr19	58685787	58689358	CDS; FLJ16542; FLJ16542 protein; Homo sapiens FLJ16542 protein (FLJ16542), mRNA.
HSAP0406S00017806	AK122590	chr9	137630247	137658668	CDS; FLJ00415; FLJ00415 protein; Homo sapiens mRNA for FLJ00415 protein.
HSAP0406S00019627	NM_00100133	chr11	7642908	7651397	CDS; CYB5R2; cytochrome b5 reductase b5R.2 isoform 2; Homo sapiens cytochrome b5 reductase b5R.2 (CYB5R2), transcript variant 2, mRNA.
HSAP0406S00009206	AF177291	chr4	120310413	120311329	CDS; N/A; genethonin 2; Homo sapiens genethonin 2 mRNA, partial cds.
HSAP0406S00027144	AF258580	chr16	24838219	24839826	CDS; N/A; PP4534; Homo sapiens PP4534 mRNA, complete cds.
HSAP0406S00001914	BC063894	chr1	114776059	114925086	CDS; FLJ37099; FLJ37099 protein; Homo sapiens FLJ37099 protein, mRNA (cDNA clone MGC:75543 IMAGE:30389241), complete cds.
HSAP0406S00011324	NM_002955	chr6	7084476	7196194	CDS; RREB1; ras responsive element binding protein 1 isoform 2; Homo sapiens ras responsive element binding protein 1 (RREB1), transcript variant 2, mRNA.
HSAP0406S00017006	BC064367	chr9	98577257	98625939	CDS; N/A; Unknown (protein for MGC:70366); Homo sapiens cDNA clone MGC:70366 IMAGE:5562895, complete cds.
HSAP0406S00005987	AB058771	chr2	231952562	232064111	CDS; KIAA1868; KIAA1868 protein; Homo sapiens mRNA for KIAA1868 protein, partial cds.
HSAP0406S00009206	AF177291	chr4	120310413	120311329	CDS; N/A; genethonin 2; Homo sapiens genethonin 2 mRNA, partial cds.
HSAP0406S00015390	BC036503	chr8	41238639	41286145	CDS; SFRP1; SFRP1 protein; Homo sapiens secreted frizzled-related protein 1, mRNA (cDNA clone MGC:43294 IMAGE:5265277), complete cds.
HSAP0406S00005492	NM_001463	chr2	183524242	183557004	CDS; FRZB; frizzled-related protein; Homo sapiens frizzled-related protein (FRZB), mRNA.
HSAP0406S00032822	AK123892	chr19	55179719	55182773	CDS; N/A; N/A; Homo sapiens cDNA FLJ41898 fis, clone OCBBF2037398.
HSAP0406S00027144	AF258580	chr16	24838219	24839826	CDS; N/A; PP4534; Homo sapiens PP4534 mRNA, complete cds.
HSAP0406S00006176	AK095300	chr2	242101264	242104649	CDS; N/A; N/A; Homo sapiens cDNA FLJ37981 fis, clone CTONG2010566.
HSAP0406S00003779	BC011962	chr1	245314397	245316222	CDS; N/A; Similar to hypothetical protein, MGC:7813; Homo sapiens, Similar to hypothetical protein, MGC:7813, clone IMAGE:3863062, mRNA, partial cds.
HSAP0406S00036409	NM_000640	chrX	114061519	114075187	CDS; IL13RA2; interleukin 13 receptor, alpha 2 precursor; Homo sapiens interleukin 13 receptor, alpha 2 (IL13RA2), mRNA.
HSAP0406S00026111	NM_003612	chr15	72489375	72513329	CDS; SEMA7A; semaphorin 7A; Homo sapiens sema domain, immunoglobulin domain (Ig), and GPI membrane anchor, (semaphorin) 7A (SEMA7A), mRNA.
HSAP0406S00007252	NM_145037	chr3	102980763	103025141	CDS; MGC15606; hypothetical protein MGC15606; Homo sapiens hypothetical protein MGC15606 (MGC15606), mRNA.
HSAP0406S00033714	NM_032514	chr20	32610179	32611810	CDS; MAP1LC3A; microtubule-associated protein 1 light chain 3 alpha isoform a; Homo sapiens microtubule-associated protein 1 light chain 3 alpha (MAP1LC3A), transcript variant 1, mRNA.

HSAP0406S00018945	NM_004193	chr10	103995298	104132639	CDS; GBF1; golgi-specific brefeldin A resistance factor 1; Homo sapiens golgi-specific brefeldin A resistance factor 1 (GBF1), mRNA.
HSAP0406S00033292	U09411	chr19	63636407	63638763	CDS; N/A; zinc finger protein ZNF132; Human zinc finger protein ZNF132 mRNA, complete cds.
HSAP0406S00036256	NM_013347	chrX	95945051	95946593	CDS; RPA4; replication protein A4, 34kDa; Homo sapiens replication protein A4, 34kDa (RPA4), mRNA.
HSAP0406S00031635	NM_033025	chr19	15079213	15086789	CDS; 7h3; hypothetical protein FLJ13511; Homo sapiens hypothetical protein FLJ13511 (7h3), mRNA.
HSAP0406S00016969	AK027046	chr9	97039090	97041314	CDS; N/A; N/A; Homo sapiens cDNA: FLJ23393 fis, clone HEP17447.
HSAP0406S00032820	NM_012068	chr19	55124271	55129003	CDS; ATF5; activating transcription factor 5; Homo sapiens activating transcription factor 5 (ATF5), mRNA.
HSAP0406S00008436	NM_021638	chr4	7878512	7992094	CDS; AFAP; actin filament associated protein; Homo sapiens actin filament associated protein (AFAP), transcript variant 1, mRNA.
HSAP0406S00016850	AK129921	chr9	88849096	88852712	CDS; N/A; N/A; Homo sapiens cDNA FLJ26411 fis, clone HRT09683.
HSAP0406S00004875	AL831825	chr2	109616445	109619576	CDS; DKFZp547G0613; hypothetical protein; Homo sapiens mRNA; cDNA DKFZp547G0613 (from clone DKFZp547G0613).
HSAP0406S00014395	AK123726	chr7	106437153	106439352	CDS; N/A; N/A; Homo sapiens cDNA FLJ41732 fis, clone HLUNG2017546.
HSAP0406S00011804	BC019083	chr6	32045571	32048200	CDS; DOM3Z; DOM-3 homolog Z; Homo sapiens dom-3 homolog Z (C. elegans), mRNA (cDNA clone MGC:29502 IMAGE:4647012), complete cds.
HSAP0406S00022500	AY358160	chr12	54918271	54919033	CDS; N/A; CVWG5837; Homo sapiens clone DNA131636 CVWG5837 (UNQ5837) mRNA, complete cds.
HSAP0406S00002084	NM_004284	chr1	143939149	143992257	CDS; CHD1L; chromodomain helicase DNA binding protein 1-like; Homo sapiens chromodomain helicase DNA binding protein 1-like (CHD1L), mRNA.
HSAP0406S00028846	NM_004740	chr17	24424664	24426753	CDS; TIAF1; TGFB1-induced anti-apoptotic factor 1; Homo sapiens TGFB1-induced anti-apoptotic factor 1 (TIAF1), mRNA.
HSAP0406S00004114	NM_032574	chr2	32160672	32176474	CDS; LOC84661; dpy-30-like protein; Homo sapiens dpy-30-like protein (LOC84661), mRNA.
HSAP0406S00025084	AF117819	chr14	95800777	95800848	CDS; N/A; bradykinin B1 receptor; Homo sapiens bradykinin B1 receptor mRNA, partial cds and 3'-untranslated region.
HSAP0406S00035863	NM_007137	chrX	47452554	47537860	CDS; ZNF81; zinc finger protein 81 (HFZ20); Homo sapiens zinc finger protein 81 (HFZ20) (ZNF81), mRNA.
HSAP0406S00010932	NM_033274	chr5	156836890	156935346	CDS; ADAM19; a disintegrin and metalloproteinase domain 19 isoform 2 preproprotein; Homo sapiens a disintegrin and metalloproteinase domain 19 (meltrin beta) (ADAM19), transcript variant 2, mRNA.
HSAP0406S00027201	NM_003321	chr16	28761613	28765144	CDS; TUFM; Tu translation elongation factor, mitochondrial; Homo sapiens Tu translation elongation factor, mitochondrial (TUFM), mRNA.
HSAP0406S00032263	BC015174	chr19	44607188	44607994	CDS; N/A; Unknown (protein for IMAGE:3903143); Homo sapiens, clone IMAGE:3903143, mRNA, partial cds.
HSAP0406S00016570	D87447	chr9	35739339	35747922	CDS; KIAA0258; N/A; Homo sapiens mRNA for KIAA0258 gene, partial cds.
HSAP0406S00006076	NM_001485	chr2	236856306	236858652	CDS; GBX2; gastrulation brain homeo box 2; Homo sapiens gastrulation brain homeo box 2 (GBX2), mRNA.
HSAP0406S00016852	NM_016848	chr9	88857624	89023236	CDS; SHC3; src homology 2 domain containing transforming protein C3; Homo sapiens src homology 2 domain containing transforming protein C3 (SHC3), mRNA.
HSAP0406S00018432	NM_173555	chr10	71568973	71576442	CDS; TYSND1; trypsin domain containing 1; Homo sapiens trypsin domain containing 1 (TYSND1), mRNA.
HSAP0406S00032807	AL050131	chr19	55051572	55053452	CDS; N/A; N/A; Homo sapiens mRNA; cDNA DKFZp586I111 (from clone DKFZp586I111).
HSAP0406S00023231	BC025963	chr12	119626361	119640530	CDS; ACADS; acyl-Coenzyme A dehydrogenase, C-2 to C-3 short chain, precursor; Homo sapiens acyl-Coenzyme A dehydrogenase, C-2 to C-3 short chain, mRNA (cDNA clone MGC:39242 IMAGE:4842286), complete cds.
HSAP0406S00000472	NM_018125	chr1	17611635	17769669	CDS; FLJ10521; hypothetical protein FLJ10521; Homo sapiens hypothetical protein FLJ10521 (FLJ10521), mRNA.

HSAP0406S00000426	AL833874	chr1	16322459	16323572	CDS; DKFZp762L155; hypothetical protein; Homo sapiens mRNA; cDNA DKFZp762L155 (from clone DKFZp762L155).
HSAP0406S00009957	NM_052870	chr5	53849539	53851426	CDS; SNAG1; sorting nexin associated golgi protein 1; Homo sapiens sorting nexin associated golgi protein 1 (SNAG1), mRNA.
HSAP0406S00015996	AF426412	chr8	141604900	141605442	CDS; HB92; cervical cancer homeoprotein 92; Homo sapiens cervical cancer homeoprotein 92 (HB92) mRNA, partial cds.
HSAP0406S00026147	AK124968	chr15	73415456	73419660	CDS; N/A; N/A; Homo sapiens cDNA FLJ42978 fis, clone BRTHA2004821.
HSAP0406S00005232	NM_152528	chr2	159917818	159968570	CDS; WDSAM1; WD repeat and SAM domain containing 1; Homo sapiens WD repeat and SAM domain containing 1 (WDSAM1), mRNA.
HSAP0406S00015351	NM_000349	chr8	38120326	38127619	CDS; STAR; steroidogenic acute regulator; Homo sapiens steroidogenic acute regulator (STAR), mRNA.
HSAP0406S00016570	D87447	chr9	35739339	35747922	CDS; KIAA0258; N/A; Homo sapiens mRNA for KIAA0258 gene, partial cds.
HSAP0406S00029788	BC053534	chr17	59875900	59895221	CDS; LOC284021; LOC284021 protein; Homo sapiens hypothetical protein LOC284021, mRNA (cDNA clone IMAGE:4428684), partial cds.
HSAP0406S00015024	AK122582	chr8	8212675	8276599	CDS; FLJ00269; FLJ00269 protein; Homo sapiens mRNA for FLJ00269 protein.
HSAP0406S00026691	NM_020764	chr16	2167184	2186524	CDS; CASKIN1; CASK interacting protein 1; Homo sapiens CASK interacting protein 1 (CASKIN1), mRNA.
HSAP0406S00034461	NM_152505	chr21	39699639	39737998	CDS; C21orf13; chromosome 21 open reading frame 13; Homo sapiens chromosome 21 open reading frame 13 (C21orf13), mRNA.
HSAP0406S00032623	NM_005628	chr19	51969981	51983653	CDS; SLC1A5; solute carrier family 1 (neutral amino acid transporter), member 5; Homo sapiens solute carrier family 1 (neutral amino acid transporter), member 5 (SLC1A5), mRNA.
HSAP0406S00019487	AK130030	chr11	3794557	3799706	CDS; N/A; N/A; Homo sapiens cDNA FLJ26520 fis, clone KDN08032.
HSAP0406S00018432	NM_173555	chr10	71568973	71576442	CDS; TYSND1; trypsin domain containing 1; Homo sapiens trypsin domain containing 1 (TYSND1), mRNA.
HSAP0406S00011362	BC016820	chr6	10779641	10802824	CDS; C6orf52; C6orf52 protein; Homo sapiens chromosome 6 open reading frame 52, mRNA (cDNA clone IMAGE:4096427), partial cds.
HSAP0406S00018129	NM_003873	chr10	33506432	33663476	CDS; NRP1; neuropilin 1; Homo sapiens neuropilin 1 (NRP1), mRNA.
HSAP0406S00028293	NM_015113	chr17	3854488	3993063	CDS; ZZEF1; zinc finger, ZZ-type with EF hand domain 1; Homo sapiens zinc finger, ZZ-type with EF hand domain 1 (ZZEF1), mRNA.
HSAP0406S00008426	BC047794	chr4	7163226	7174431	CDS; MGC21874; MGC21874 protein; Homo sapiens transcriptional adaptor 2 (ADA2 homolog, yeast)-beta, mRNA (cDNA clone IMAGE:6190777), partial cds.
HSAP0406S00032604	NM_032040	chr19	51605928	51608681	CDS; CCDC8; coiled-coil domain containing 8; Homo sapiens coiled-coil domain containing 8 (CCDC8), mRNA.
HSAP0406S00025554	BC015738	chr15	38886604	38894059	CDS; ZFYVE19; ZFYVE19 protein; Homo sapiens zinc finger, FYVE domain containing 19, mRNA (cDNA clone MGC:23002 IMAGE:4876596), complete cds.
HSAP0406S00032298	NM_178830	chr19	45518812	45546133	CDS; FLJ36888; hypothetical protein FLJ36888 (FLJ36888), mRNA.
HSAP0406S00031519	U68382	chr19	12618374	12638497	CDS; MANB; truncated lysosomal acid alpha-mannosidase; Human lysosomal acid alpha-mannosidase (MANB) mRNA, alternatively spliced transcript, complete cds.
HSAP0406S00032568	NM_175875	chr19	50959883	50964152	CDS; SIX5; sine oculis homeobox homolog 5; Homo sapiens sine oculis homeobox homolog 5 (Drosophila) (SIX5), mRNA.
HSAP0406S00015766	AK074518	chr8	100025845	100033508	CDS; N/A; N/A; Homo sapiens cDNA FLJ90037 fis, clone HEMBA1002048, moderately similar to ODD-SKIPPED PROTEIN.
HSAP0406S00011126	BC067806	chr5	176843004	176857208	CDS; PDLIM7; PDLIM7 protein; Homo sapiens PDZ and LIM domain 7 (enigma), mRNA (cDNA clone IMAGE:5287820), complete cds.

HSAP0406S00012137	BC048331	chr6	43039724	43054882	CDS; PEX6; peroxisomal biogenesis factor 6; Homo sapiens peroxisomal biogenesis factor 6, mRNA (cDNA clone MGC:54056 IMAGE:5189685), complete cds. CDS; FLJ22301; hypothetical protein FLJ22301; Homo sapiens hypothetical protein FLJ22301 (FLJ22301), mRNA.
HSAP0406S00003783	NM_024836	chr1	245342280	245353464	CDS; FLJ00041; FLJ00041 protein; Homo sapiens mRNA for FLJ00041 protein, partial cds.
HSAP0406S00018472	AK024449	chr10	73177321	73203261	CDS; STK10; serine/threonine kinase 10; Homo sapiens serine/threonine kinase 10 (STK10), mRNA.
HSAP0406S00011021	NM_005990	chr5	171403229	171547865	CDS; SURF2; surfet 2; Homo sapiens surfet 2 (SURF2), mRNA.
HSAP0406S00017602	NM_017503	chr9	133252981	133257586	CDS; FKBP1B; FK506-binding protein 1B isoform b; Homo sapiens FK506 binding protein 1B, 12.6 kDa (FKBP1B), transcript variant 2, mRNA.
HSAP0406S00003947	NM_054033	chr2	24184278	24198199	CDS; N/A; G protein-coupled receptor; Human G protein-coupled receptor mRNA, complete cds.
HSAP0406S00024962	U35398	chr14	90769964	90771247	CDS; N/A; AHNAK-related protein; H.sapiens mRNA of AHNAK-related sequence.
HSAP0406S00020300	X74818	chr11	62044527	62046128	CDS; N/A; N/A; Homo sapiens cDNA FLJ46846 fis, clone UTERU3004635, moderately similar to Neuroblast differentiation associated protein AHNAK.
HSAP0406S00020301	AK128868	chr11	62041343	62046487	CDS; FLJ20241; putative NFkB activating protein; Homo sapiens putative NFkB activating protein (FLJ20241), mRNA.
HSAP0406S00031579	NM_017721	chr19	13864992	13902691	CDS; SIAT7D; sialyltransferase 7D isoform a; Homo sapiens sialyltransferase 7D ((alpha-N-acetylneuraminyl-2,3-beta-galactosyl-1,3)-N-acetyl galactosaminide alpha-2,6-sialyltransferase) (SIAT7D), transcript variant 1, mRNA.
HSAP0406S00017399	NM_014403	chr9	127749719	127758855	CDS; FLJ11588; FLJ11588 protein; Homo sapiens hypothetical protein FLJ11588, mRNA (cDNA clone MGC:14179 IMAGE:4121760), complete cds.
HSAP0406S00001240	BC007932	chr1	48905563	48954610	CDS; N/A; N/A; Homo sapiens cDNA FLJ41485 fis, clone BRTHA2003116.
HSAP0406S00035340	AK123479	chr22	40659248	40667655	CDS; DKFZP434P0316; hypothetical protein DKFZp434P0316; Homo sapiens hypothetical protein DKFZp434P0316 (DKFZP434P0316), mRNA.
HSAP0406S00030027	NM_032134	chr17	71781726	71815356	CDS; SLC1A5; SLC1A5 protein; Homo sapiens solute carrier family 1 (neutral amino acid transporter), member 5, mRNA (cDNA clone IMAGE:3446313), complete cds.
HSAP0406S00032622	BC000986	chr19	51982911	51984136	CDS; C21orf33; homolog of zebrafish ES1 isoform 1a precursor; Homo sapiens chromosome 21 open reading frame 33 (C21orf33), nuclear gene encoding mitochondrial protein, transcript variant 1, mRNA.
HSAP0406S00034560	NM_004649	chr21	44377923	44390020	CDS; KIAA1868; KIAA1868 protein; Homo sapiens mRNA for KIAA1868 protein, partial cds.
HSAP0406S00005987	AB058771	chr2	231952562	232064111	CDS; ATM; ataxia telangiectasia mutated protein isoform 1; Homo sapiens ataxia telangiectasia mutated (includes complementation groups A, C and D) (ATM), transcript variant 1, mRNA.
HSAP0406S00021097	NM_000051	chr11	107599052	107741966	CDS; KIAA1866; KIAA1866 protein; Homo sapiens mRNA for KIAA1866 protein, partial cds.
HSAP0406S00013064	AB058769	chr6	159621409	159663550	CDS; N/A; N/A; Homo sapiens cDNA FLJ13963 fis, clone Y79AA1001299, highly similar to Homo sapiens mRNA for integrase interactor 1b protein (INI1B).
HSAP0406S00034908	AK024025	chr22	22453703	22501246	CDS; TIMM44; translocase of inner mitochondrial membrane 44 homolog; Homo sapiens translocase of inner mitochondrial membrane 44 homolog (yeast) (TIMM44), mRNA.
HSAP0406S00031304	NM_006351	chr19	7897603	7914538	CDS; JUNB; jun B proto-oncogene; Homo sapiens jun B proto-oncogene (JUNB), mRNA.
HSAP0406S00031535	NM_002229	chr19	12763309	12765124	CDS; THBS3; thrombospondin 3 precursor; Homo sapiens thrombospondin 3 (THBS3), mRNA.
HSAP0406S00002429	NM_007112	chr1	151978453	151990763	CDS; PDLIM7; PDLIM7 protein; Homo sapiens PDZ and LIM domain 7 (enigma), mRNA (cDNA clone IMAGE:5287820), complete cds.
HSAP0406S00011126	BC067806	chr5	176843004	176857208	CDS; PES1; pescadillo homolog 1, containing BRCT domain; Homo sapiens pescadillo homolog 1, containing BRCT domain (zebrafish) (PES1), mRNA.
HSAP0406S00035052	NM_014303	chr22	29297166	29312448	

HSAP0406S00009252	NM_152618	chr4	124011461	124023702	CDS; FLJ35630; hypothetical protein FLJ35630; Homo sapiens hypothetical protein FLJ35630 (FLJ35630), mRNA.
HSAP0406S00002971	NM_002928	chr1	179299415	179305200	CDS; RGS16; regulator of G-protein signalling 16; Homo sapiens regulator of G-protein signalling 16 (RGS16), mRNA.
HSAP0406S00028077	NM_014745	chr16	87309255	87330160	CDS; FAM38A; family with sequence similarity 38, member A; Homo sapiens family with sequence similarity 38, member A (FAM38A), mRNA.
HSAP0406S00003692	D13413	chr1	241353053	241353628	CDS; N/A; p120; Homo sapiens mRNA for p120, partial cds.
HSAP0406S00003696	AK027158	chr1	241614044	241616504	CDS; N/A; N/A; Homo sapiens cDNA: FLJ23505 fis, clone LNG03017.
HSAP0406S00031386	NM_000201	chr19	10242778	10258291	CDS; ICAM1; intercellular adhesion molecule 1 precursor; Homo sapiens intercellular adhesion molecule 1 (CD54), human rhinovirus receptor (ICAM1), mRNA.
HSAP0406S00000438	AB067509	chr1	16539236	16564502	CDS; KIAA1922; KIAA1922 protein; Homo sapiens mRNA for KIAA1922 protein, partial cds.
HSAP0406S00027687	NM_032140	chr16	66254350	66258129	CDS; DKFZP434A1319; hypothetical protein DKFZp434A1319 (DKFZP434A1319), mRNA.
HSAP0406S00000566	AK127275	chr1	21884063	21897020	CDS; N/A; N/A; Homo sapiens cDNA FLJ45342 fis, clone BRHIP3009753.
HSAP0406S00027545	BC053658	chr16	55684023	55739375	CDS; CPNE2; CPNE2 protein; Homo sapiens copine II, mRNA (cDNA clone MGC:61692 IMAGE:5750192), complete cds.
HSAP0406S00002019	AF380582	chr1	142802373	142804880	CDS; N/A; AG8; Homo sapiens AG8 mRNA, partial cds.
HSAP0406S00017814	NM_152285	chr9	137775942	137785646	CDS; ARRDC1; arrestin domain containing 1; Homo sapiens arrestin domain containing 1 (ARRDC1), mRNA.
HSAP0406S00018851	BC015951	chr10	101360271	101360390	CDS; SLC25A28; SLC25A28 protein; Homo sapiens solute carrier family 25, member 28, mRNA (cDNA clone IMAGE:3909610), partial cds.
HSAP0406S00017652	BC004905	chr9	135621458	135622461	CDS; MRPS2; MRPS2 protein; Homo sapiens mitochondrial ribosomal protein S2, mRNA (cDNA clone IMAGE:3509565), complete cds.
HSAP0406S00032622	BC000986	chr19	51982911	51984136	CDS; SLC1A5; SLC1A5 protein; Homo sapiens solute carrier family 1 (neutral amino acid transporter), member 5, mRNA (cDNA clone IMAGE:3446313), complete cds.
HSAP0406S00014124	NM_005221	chr7	96294358	96298794	CDS; DLX5; distal-less homeo box 5; Homo sapiens distal-less homeo box 5 (DLX5), mRNA.
HSAP0406S00025698	NM_025137	chr15	42642191	42743138	CDS; FLJ21439; hypothetical protein FLJ21439; Homo sapiens hypothetical protein FLJ21439 (FLJ21439), mRNA.
HSAP0406S00015877	BC014640	chr8	121332166	121453452	CDS; COL14A1; COL14A1 protein; Homo sapiens collagen, type XIV, alpha 1 (undulin), mRNA (cDNA clone MGC:15451 IMAGE:2960796), complete cds.
HSAP0406S00016175	NM_013291	chr8	145589257	145605517	CDS; CPSF1; cleavage and polyadenylation specific factor 1, 160kDa; Homo sapiens cleavage and polyadenylation specific factor 1, 160kDa (CPSF1), mRNA.
HSAP0406S00010277	NM_005654	chr5	92944798	92955540	CDS; NR2F1; nuclear receptor subfamily 2, group F, member 1; Homo sapiens nuclear receptor subfamily 2, group F, member 1 (NR2F1), mRNA.
HSAP0406S00013257	NM_025250	chr7	2444843	2477675	CDS; TTYH3; tweety 3; Homo sapiens tweety homolog 3 (Drosophila) (TTYH3), mRNA.
HSAP0406S00027098	AY359095	chr16	22732998	22835572	CDS; N/A; HS3ST2; Homo sapiens clone DNA97013 HS3ST2 (UNQ2442) mRNA, complete cds.
HSAP0406S00006717	NM_014966	chr3	47819654	47866686	CDS; DHX30; DEAH (Asp-Glu-Ala-His) box polypeptide 30 isoform 2; Homo sapiens DEAH (Asp-Glu-Ala-His) box polypeptide 30 (DHX30), transcript variant 2, mRNA.
HSAP0406S00016136	NM_030974	chr8	145225528	145231081	CDS; Sharpin; shank-interacting protein-like 1 alpha; Homo sapiens shank-interacting protein-like 1 alpha (Sharpin), mRNA.
HSAP0406S00020006	NM_002391	chr11	46359859	46361950	CDS; MDK; midkine (neurite growth-promoting factor 2); Homo sapiens midkine (neurite growth-promoting factor 2) (MDK), mRNA.
HSAP0406S00000547	AB031742	chr1	21291380	21361955	CDS; N/A; endothelin-converting enzyme-1c; Homo sapiens mRNA for endothelin-converting enzyme-1c, complete cds.

HSAP0406S00028461	NM_004860	chr17	7435271	7458796	CDS; FXR2; fragile X mental retardation syndrome related protein 2; Homo sapiens fragile X mental retardation, autosomal homolog 2 (FXR2), mRNA. CDS; N/A; N/A; Homo sapiens cDNA FLJ45598 fis, clone
HSAP0406S00026714	AK127505	chr16	2506762	2508001	BRTHA3018623. CDS; FLJ42117; FLJ42117 protein; Homo sapiens
HSAP0406S00007063	NM_198463	chr3	58702776	59010755	FLJ42117 protein (FLJ42117), mRNA. CDS; DOCK1; dedicator of cytokinesis 1; Homo sapiens
HSAP0406S00019211	NM_001380	chr10	128658954	129140769	dedicator of cytokinesis 1 (DOCK1), mRNA. CDS; N/A; Unknown (protein for IMAGE:4431121); Homo
HSAP0406S00017965	BC026226	chr10	14924723	14929003	sapiens cDNA clone IMAGE:4431121, partial cds. CDS; SCARF2; scavenger receptor class F, member 2
HSAP0406S00034788	NM_153334	chr22	19103428	19116700	isoform 1; Homo sapiens scavenger receptor class F, member 2 (SCARF2), transcript variant 1, mRNA. CDS; DKFZp434C184; DKFZp434C184 protein; Homo
HSAP0406S00000787	BC064375	chr1	29266555	29271023	sapiens cDNA DKFZp434C184 gene, mRNA (cDNA clone IMAGE:5722634), partial cds. CDS; N/A; N/A; Homo sapiens cDNA FLJ13515 fis, clone
HSAP0406S00020235	AK023577	chr11	60455808	60461206	PLACE1005595. CDS; N/A; N/A; Homo sapiens cDNA FLJ20748 fis, clone
HSAP0406S00030138	AK000755	chr17	75524024	75526454	HEP05772. CDS; KKS1; homolog of yeast ribosome biogenesis
HSAP0406S00015540	NM_015169	chr8	67503816	67505520	regulatory protein RRS1; Homo sapiens RRS1 ribosome biogenesis regulator homolog (S. cerevisiae) (RRS1), mRNA. CDS; C6orf47; G4 protein; Homo sapiens chromosome 6
HSAP0406S00011765	NM_021184	chr6	31734053	31736489	open reading frame 47 (C6orf47), mRNA. CDS; FLJ39575; hypothetical protein FLJ39575; Homo
HSAP0406S00014434	NM_182597	chr7	111714996	111724893	sapiens hypothetical protein FLJ39575 (FLJ39575), mRNA. CDS; KIAA1298; KIAA1298 protein; Homo sapiens
HSAP0406S00023012	AB037719	chr12	107681038	107701420	mRNA for KIAA1298 protein, partial cds. CDS; HSPD1; chaperonin; Homo sapiens heat shock
HSAP0406S00005592	NM_002156	chr2	198176815	198190146	60kDa protein 1 (chaperonin) (HSPD1), nuclear gene encoding mitochondrial protein, transcript variant 1, mRNA. CDS; RASD1; RAS, dexamethasone-induced 1; Homo
HSAP0406S00028647	NM_016084	chr17	17338479	17340432	sapiens RAS, dexamethasone-induced 1 (RASD1), mRNA. CDS; MARK2; MAP/microtubule affinity-regulating kinase
HSAP0406S00020375	NM_017490	chr11	63412650	63433628	2 isoform a; Homo sapiens MAP/microtubule affinity-regulating kinase 2 (MARK2), transcript variant 1, mRNA. CDS; SPOCD1; SPOCD1 protein; Homo sapiens SPOC
HSAP0406S00000825	BC039870	chr1	31925117	31925814	domain containing 1, mRNA (cDNA clone IMAGE:4184930), partial cds. CDS; C21orf13; chromosome 21 open reading frame 13; Homo sapiens chromosome 21 open reading frame 13
HSAP0406S00034461	NM_152505	chr21	39699639	39737998	(C21orf13), mRNA. CDS; TALDO1; transaldolase 1; Homo sapiens
HSAP0406S00019358	NM_006755	chr11	737431	755023	transaldolase 1 (TALDO1), mRNA. CDS; ISYNA1; myo-inositol 1-phosphate synthase A1; Homo sapiens myo-inositol 1-phosphate synthase A1, mRNA (cDNA clone MGC:87044 IMAGE:5262041),
HSAP0406S00031794	BC066902	chr19	18406618	18409941	complete cds. CDS; N/A; p120; Homo sapiens mRNA for p120, partial
HSAP0406S00003692	D13413	chr1	241353053	241353628	cds. CDS; N/A; N/A; Homo sapiens cDNA FLJ40532 fis, clone
HSAP0406S00028076	AK097851	chr16	87312523	87314368	TESTI2047801. CDS; PP1030; unknown; Homo sapiens PP1030 mRNA, complete cds. CDS; KEAP1; kelch-like ECH-associated protein 1; Homo
HSAP0406S00020514	AF193040	chr11	65301669	65303892	sapiens kelch-like ECH-associated protein 1 (KEAP1), transcript variant 1, mRNA. CDS; ABCC3; ATP-binding cassette, sub-family C, member 3 isoform MRP3B; Homo sapiens ATP-binding
HSAP0406S00031407	NM_203500	chr19	10457795	10475054	cassette, sub-family C (CFTR/MRP), member 3 (ABCC3), transcript variant MRP3B, mRNA. CDS; MGC10433; hypothetical protein MGC10433; Homo
HSAP0406S00029580	NM_020038	chr17	46067226	46124061	sapiens hypothetical protein MGC10433 (MGC10433), mRNA. CDS; MGC10433; hypothetical protein MGC10433; Homo
HSAP0406S00032070	NM_024321	chr19	40811819	40820426	sapiens hypothetical protein MGC10433 (MGC10433), mRNA.

HSAP0406S00025269	NM_004689	chr14	104957410	105008100	CDS; MTA1; metastasis associated protein; Homo sapiens metastasis associated 1 (MTA1), mRNA.
HSAP0406S00008086	NM_004443	chr3	185762288	185782897	CDS; EPHB3; ephrin receptor EphB3 precursor; Homo sapiens EphB3 (EPHB3), mRNA.
HSAP0406S00022388	NM_006897	chr12	52680143	52683385	CDS; HOXC9; homeo box C9; Homo sapiens homeo box C9 (HOXC9), mRNA.
HSAP0406S00006998	NM_172234	chr3	53855611	53874866	CDS; IL17RB; interleukin 17B receptor isoform 2 precursor; Homo sapiens interleukin 17 receptor B (IL17RB), transcript variant 2, mRNA.
HSAP0406S00017526	AY043457	chr9	130759739	130759847	CDS; BCR-ABL fusion; BCR-ABL fusion protein; Homo sapiens BCR-ABL fusion protein (BCR-ABL fusion) mRNA, partial cds.
HSAP0406S00031612	NM_005716	chr19	14449571	14467944	CDS; RGS19IP1; regulator of G-protein signalling 19 interacting protein 1 isoform 1; Homo sapiens regulator of G-protein signalling 19 interacting protein 1 (RGS19IP1), transcript variant 1, mRNA.
HSAP0406S00016170	NM_024531	chr8	145553032	145555754	CDS; GPR172A; G protein-coupled receptor 172A; Homo sapiens G protein-coupled receptor 172A (GPR172A), mRNA.
HSAP0406S00031379	AJ300588	chr19	10078070	10086414	CDS; N/A; SSF1/P2Y11 chimeric protein; Homo sapiens mRNA for SSF1/P2Y11 chimeric protein.
HSAP0406S00022442	BC050280	chr12	54364622	54387949	CDS; ITGA7; integrin alpha 7, precursor; Homo sapiens integrin, alpha 7, mRNA (cDNA clone MGC:33821 IMAGE:5284443), complete cds.
HSAP0406S00008456	AK056317	chr4	8712457	8739550	CDS; N/A; N/A; Homo sapiens cDNA FLJ31755 fis, clone NT2RI2007498, highly similar to Homo sapiens carboxypeptidase Z precursor, mRNA.
HSAP0406S00010937	AF110136	chr5	157092579	157094306	CDS; N/A; IHG-1; Homo sapiens IHG-1 mRNA, partial cds.
HSAP0406S00006233	NM_014583	chr3	8518510	8584805	CDS; LMCD1; LIM and cysteine-rich domains 1; Homo sapiens LIM and cysteine-rich domains 1 (LMCD1), mRNA.
HSAP0406S00032580	AL080159	chr19	51078706	51080204	CDS; DKFZp434M154; hypothetical protein; Homo sapiens mRNA; cDNA DKFZp434M154 (from clone DKFZp434M154).
HSAP0406S00015428	BC037295	chr8	43030607	43060086	source; N/A; N/A; Homo sapiens farnesyltransferase, CAAX box, alpha, mRNA (cDNA clone IMAGE:4798668), with apparent retained intron.
HSAP0406S00031805	NM_004750	chr19	18565046	18578660	CDS; CRLF1; cytokine receptor-like factor 1; Homo sapiens cytokine receptor-like factor 1 (CRLF1), mRNA.
HSAP0406S00031379	AJ300588	chr19	10078070	10086414	CDS; N/A; SSF1/P2Y11 chimeric protein; Homo sapiens mRNA for SSF1/P2Y11 chimeric protein.
HSAP0406S00033708	BC011606	chr20	32331736	32354811	CDS; AHCY; S-adenosylhomocysteine hydrolase; Homo sapiens S-adenosylhomocysteine hydrolase, mRNA (cDNA clone MGC:2319 IMAGE:3139231), complete cds.
HSAP0406S00011021	NM_005990	chr5	171403229	171547865	CDS; STK10; serine/threonine kinase 10; Homo sapiens serine/threonine kinase 10 (STK10), mRNA.
HSAP0406S00034983	AB028966	chr22	26701809	26827711	CDS; KIAA1043; KIAA1043 protein; Homo sapiens mRNA for KIAA1043 protein, partial cds.
HSAP0406S00006739	AB007867	chr3	48420266	48445876	CDS; KIAA0407; N/A; Homo sapiens KIAA0407 mRNA, partial cds.
HSAP0406S00031371	NM_058164	chr19	9825394	9908070	CDS; OLFM2; olfactomedin 2; Homo sapiens olfactomedin 2 (OLFM2), mRNA.
HSAP0406S00006998	NM_172234	chr3	53855611	53874866	CDS; IL17RB; interleukin 17B receptor isoform 2 precursor; Homo sapiens interleukin 17 receptor B (IL17RB), transcript variant 2, mRNA.
HSAP0406S00005990	AK091742	chr2	232144964	232154700	CDS; N/A; N/A; Homo sapiens cDNA FLJ34423 fis, clone HHDPC2008123, highly similar to NUCLEOLIN.
HSAP0406S00020586	NM_006328	chr11	66140672	66151387	CDS; RBM14; RNA binding motif protein 14; Homo sapiens RNA binding motif protein 14 (RBM14), mRNA.
HSAP0406S00027513	AK127290	chr16	55075800	55092332	CDS; N/A; N/A; Homo sapiens cDNA FLJ45357 fis, clone BRHIP3012997.
HSAP0406S00008363	NM_002111	chr4	3113411	3282656	CDS; HD; huntingtin; Homo sapiens huntingtin (Huntington disease) (HD), mRNA.
HSAP0406S00034832	BC028385	chr22	20344882	20377104	CDS; PPIL2; PPIL2 protein; Homo sapiens peptidylprolyl isomerase (cyclophilin)-like 2, mRNA (cDNA clone MGC:33174 IMAGE:4816793), complete cds.
HSAP0406S00035015	NM_181826	chr22	28324118	28419137	CDS; NF2; neurofibromin 2 isoform 3; Homo sapiens neurofibromin 2 (bilateral acoustic neuroma) (NF2), transcript variant 3, mRNA.

HSAP0406S00028179	AK001488	chr17	609441	632284	CDS; N/A; N/A; Homo sapiens cDNA FLJ10626 fis, clone NT2RP2005549, weakly similar to PUTATIVE LACTOYLGLUTATHIONE LYASE (EC 4.4.1.5).
HSAP0406S00035036	AK055587	chr22	29005661	29010076	CDS; N/A; N/A; Homo sapiens cDNA FLJ31025 fis, clone HLUNG2000501.
HSAP0406S00019754	NM_005013	chr11	17254887	17309646	CDS; NUCB2; nucleobindin 2; Homo sapiens nucleobindin 2 (NUCB2), mRNA.
HSAP0406S00031652	AK027615	chr19	15393905	15399041	CDS; N/A; N/A; Homo sapiens cDNA FLJ14709 fis, clone NT2RP3000605, moderately similar to Mus musculus mRNA for wizL.
HSAP0406S00035013	AB023200	chr22	28226421	28274257	CDS; KIAA0983; KIAA0983 protein; Homo sapiens mRNA for KIAA0983 protein, partial cds.
HSAP0406S00020537	NM_001323	chr11	65536037	65537551	CDS; CST6; cystatin M precursor; Homo sapiens cystatin E/M (CST6), mRNA.
HSAP0406S00015024	AK122582	chr8	8212675	8276599	CDS; FLJ00269; FLJ00269 protein; Homo sapiens mRNA for FLJ00269 protein.
HSAP0406S00027659	NM_014187	chr16	65818514	65820682	CDS; HSPC171; HSPC171 protein; Homo sapiens HSPC171 protein (HSPC171), mRNA.
HSAP0406S00031566	NM_004907	chr19	13122281	13126716	CDS; IER2; immediate early response 2; Homo sapiens immediate early response 2 (IER2), mRNA.
HSAP0406S00011528	NM_078476	chr6	26566167	26577844	CDS; BTN2A1; butyrophilin, subfamily 2, member A1 isoform 2 precursor; Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), transcript variant 2, mRNA.
HSAP0406S00030893	BC005839	chr19	627402	634385	CDS; FSTL3; follistatin-like 3 glycoprotein; Homo sapiens follistatin-like 3 (secreted glycoprotein), mRNA (cDNA clone MGC:2547 IMAGE:2962889), complete cds.
HSAP0406S00015064	NM_004462	chr8	11697663	11734215	CDS; FDFT1; farnesyl-diphosphate farnesyltransferase 1; Homo sapiens farnesyl-diphosphate farnesyltransferase 1 (FDFT1), mRNA.
HSAP0406S00012034	NM_002648	chr6	37245963	37251180	CDS; PIM1; pim-1 oncogene; Homo sapiens pim-1 oncogene (PIM1), mRNA.
HSAP0406S00030074	AF142569	chr17	73006417	73008269	CDS; SBBI23; hypothetical protein SBBI23; Homo sapiens hypothetical protein SBBI23 (SBBI23) mRNA, complete cds.
HSAP0406S00034687	NM_033070	chr22	15992964	16014723	CDS; CECR5; cat eye syndrome chromosome region, candidate 5 isoform 2 precursor; Homo sapiens cat eye syndrome chromosome region, candidate 5 (CECR5), transcript variant 2, mRNA.
HSAP0406S00028790	NM_000638	chr17	23718424	23721844	CDS; VTN; vitronectin precursor; Homo sapiens vitronectin (serum spreading factor, somatomedin B, complement S-protein) (VTN), mRNA.
HSAP0406S00032263	BC015174	chr19	44607188	44607994	CDS; N/A; Unknown (protein for IMAGE:3903143); Homo sapiens, clone IMAGE:3903143, mRNA, partial cds.
HSAP0406S00025187	NM_001823	chr14	103055748	103058923	CDS; CKB; brain creatine kinase; Homo sapiens creatine kinase, brain (CKB), mRNA.
HSAP0406S00029492	NM_024015	chr17	44007874	44010742	CDS; HOXB4; homeo box B4; Homo sapiens homeo box B4 (HOXB4), mRNA.
HSAP0406S00000568	M85289	chr1	21894043	22009096	CDS; HSPG2; heparan sulfate proteoglycan; Human heparan sulfate proteoglycan (HSPG2) mRNA, complete cds.
HSAP0406S00007375	BC044929	chr3	120843595	120862127	CDS; POPDC2; popeye protein 2; Homo sapiens popeye domain containing 2, mRNA (cDNA clone MGC:49863 IMAGE:5191230), complete cds.
HSAP0406S00009405	NM_032117	chr4	154623405	154693848	CDS; GAJ; GAJ protein; Homo sapiens GAJ protein (GAJ), mRNA.
HSAP0406S00031372	NM_015719	chr19	9931236	9982147	CDS; COL5A3; collagen, type V, alpha 3 preproprotein; Homo sapiens collagen, type V, alpha 3 (COL5A3), mRNA.
HSAP0406S00000424	NM_030907	chr1	16303501	16308752	CDS; MGC10731; hypothetical protein MGC10731; Homo sapiens hypothetical protein MGC10731 (MGC10731), mRNA.
HSAP0406S000005024	AL512716	chr2	128112232	128113215	CDS; DKFZp547D192; hypothetical protein; Homo sapiens mRNA; cDNA DKFZp547D192 (from clone DKFZp547D192).
HSAP0406S00016161	NM_005526	chr8	145486090	145509187	CDS; HSF1; heat shock transcription factor 1; Homo sapiens heat shock transcription factor 1 (HSF1), mRNA.
HSAP0406S00020410	BC011528	chr11	63839845	63840786	CDS; N/A; Unknown (protein for IMAGE:3855067); Homo sapiens, clone IMAGE:3855067, mRNA, partial cds.

HSAP0406S00022270	AK091315	chr12	50490055	50492903	CDS; N/A; N/A; Homo sapiens cDNA FLJ33996 fis, clone DFNES2008881.
HSAP0406S00032293	BC063421	chr19	45430081	45483132	CDS; N/A; Unknown (protein for MGC:70754); Homo sapiens cDNA clone MGC:70754 IMAGE:5220341, complete cds.
HSAP0406S00003536	NM_145214	chr1	224888113	224901252	CDS; TRIM11; tripartite motif-containing 11; Homo sapiens tripartite motif-containing 11 (TRIM11), mRNA.
HSAP0406S00002945	NM_002826	chr1	176855624	176898826	CDS; QSCN6; quiescin Q6 isoform a; Homo sapiens quiescin Q6 (QSCN6), transcript variant 1, mRNA.
HSAP0406S00027388	NM_022744	chr16	31408315	31427207	CDS; FLJ13868; hypothetical protein FLJ13868; Homo sapiens hypothetical protein FLJ13868 (FLJ13868), mRNA.

Supp Table 4. MDS patient characteristics for primary MSC sample isolation.

Bone marrow was obtained at entry of a prospective clinical trial (HOVON89, Eudract nr. 2008-002195-10).

Sample	Age	WHO	Hb (mmol/l)	Plt (x10- 09/l)	Leu (x10- 09/l)	Cytogenetics	BM blasts	IPSS
MDS_1	62	RCMD-RS	4	587	4	46,XY[20]	0%	0
MDS_2	63	RAEB-1	5.1	73	2.8	46,XX[20]	5%	1
MDS_3	65	RCMD-RS	5.9	249	4.24	46,XX[20]	3%	0.5
MDS_4	58	RCMD-RS	4.8	248	4.5	45,X,-Y[10]/46,XY[10]	1%	0
MDS_5	38	MDS-5q	6.3	100	8.9	46,XX,del(5)(q13q33)[2 5]/46,XX[5]	2%	0
MDS_6	65	RCMD	4.8	153	5	46,XX[20]	2%	0
MDS_7	80	RCMD	5.7	153	10.3	46,XY[20]	3%	0.5
MDS_8	66	RARS	5	185	12.7	46,XX[21]	2%	0
MDS_9	56	RARS	4.3	391	3.8	46,XX[20]	0%	0
MDS_10	72	RCMD-RS	8.1	69	5.5	46,XX[20]	1%	0.5
MDS_11	75	MDS-5q	5.4	327	8.4	46,XX,del(5)(q15q33)[1 0]	1%	0
MDS_12	79	RCMD-RS	6.2	240	3.5	46,XX[10]	0%	0

Supp table 5: WNT Targets

Gene Symbol	Chromosomal Location	Gene Title
ATOH1	chr4q22	atonal homolog 1 (Drosophila)
AXIN2	chr17q23-q24	axin 2
BTRC	chr10q24.32	beta-transducin repeat containing
CCND1	chr11q13	cyclin D1
CD44	chr11p13	CD44 molecule (Indian blood group)
CD44	chr11p13	CD44 molecule (Indian blood group)
CDKN2A	chr9p21	cyclin-dependent kinase inhibitor 2A (melanoma, p16, inhibits CDK4)
DPP9		dipeptidyl-peptidase 9
EGFR	chr7p12	epidermal growth factor receptor (erythroblastic leukemia viral (v-erb-b) oncogene homolog, avian)
ENPP2	chr8q24.1	ectonucleotide pyrophosphatase/phosphodiesterase 2
FOSL1	chr11q13	FOS-like antigen 1
FZD7	chr2q33	frizzled homolog 7 (Drosophila)
FZD7	chr2q33	frizzled homolog 7 (Drosophila)
ID2	chr2p25	inhibitor of DNA binding 2, dominant negative helix-loop-helix protein
JAG1	chr20p12.1-p11.23	jagged 1 (Alagille syndrome)
JUN	chr1p32-p31	jun oncogene
LBH	chr2p23.1	limb bud and heart development homolog (mouse)
MITF	chr3p14.2-p14.1	microphthalmia-associated transcription factor
MITF	chr3p14.2-p14.1	microphthalmia-associated transcription factor
MMP7	chr11q21-q22	matrix metalloproteinase 7 (matrilysin, uterine)
MSL1	chr17q21.1	male-specific lethal 1 homolog (Drosophila)
MYCN	chr2p24.1	v-myc myelocytomatosis viral related oncogene, neuroblastoma derived (avian)
OVOL2	chr20pter-q11.23	ovo-like 2 (Drosophila)
POU5F1 /// POU5F1B /// POU5F1P3 ///		
POU5F1P4	chr12p13.31 /// chr	POU class 5 homeobox 1 /// POU class 5 homeobox 1B /// POU class 5 homeobox 1 pseudogene 3 /// POU
PTGS2	chr1q25.2-q25.3	prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase)
RUNX2	chr6p21	runt-related transcription factor 2
SNAI3	chr16q24.3	snail homolog 3 (Drosophila)
TEP1	chr14q11.2	telomerase-associated protein 1
TEP1	chr14q11.2	telomerase-associated protein 1
BGLAP	chr1q25-q31	bone gamma-carboxyglutamate (gla) protein
BIRC5	chr17q25	baculoviral IAP repeat-containing 5
CACNA1G	chr17q22	calcium channel, voltage-dependent, T type, alpha 1G subunit
CDH1	chr16q22.1	cadherin 1, type 1, E-cadherin (epithelial)
CDX1	chr5q31-q33	caudal type homeobox 1
CTLA4	chr2q33	cytotoxic T-lymphocyte-associated protein 4
EDA	chrXq12-q13.1	ectodysplasin A
FST	chr5q11.2	follistatin
GJA1	chr6q21-q23.2	gap junction protein, alpha 1, 43kDa
IGF1	chr12q22-q23	insulin-like growth factor 1 (somatomedin C)
LEF1	chr4q23-q25	lymphoid enhancer-binding factor 1
MYCBP	chr1p33-p32.2	c-myc binding protein
OVOL1	chr11q13	ovo-like 1(Drosophila)
PLAUR	chr19q13	plasminogen activator, urokinase receptor
RET	chr10q11.2	ret proto-oncogene
T	chr6q27	T, brachyury homolog (mouse)
TCF3	chr19p13.3	transcription factor 3 (E2A immunoglobulin enhancer binding factors E12/E47)
TCF4	chr18q21.1	transcription factor 4
TERT	chr5p15.33	telomerase reverse transcriptase
VCAN	chr5q14.3	versican