Table S1. Primer sequences used for real-time PCR analysis

No	Name	Sequence	NCBI Reference	Note
1	GAPDH_Fwd	GGCCTCCAAGGAGTAAGACC	NM_001289746.1	House Keeping
2	GAPDH_Rev	AGGGGTCTACATGGCAACTG		
3	POU5F1_Fwd	GAGGAAGCTGACAACAATGA	NM_002701.5	Pluripotency
4	POU5F1_Rev	GTATCGAGAACCGAGTGAGA		
5	Nanog_Fwd	CACCTATGCCTGTGATTTGTGGG	AB093576.1	Pluripotency
6	Nanog_Rev	GGAGGAGGGAAGAGGAGAGACA		
7	AFP_Fwd	AAATGCGTTTCTCGTTGCTT	NM_001134.2	Endoderm
8	AFP_Rev	GCCACAGGCCAATAGTTTGT		
9	Foxa2_Fwd	CCCGGTTTTATCCCTTGAAT	NM_021784.4	Endoderm
10	Foxa2_Rev	CCTGCAACCAGACAGGTAT		
11	Hnf4a_Fwd	TCAACCCGAGAAAACAAACC	NM_000457.4	Endoderm
12	Hnf4a_Rev	ACCTGCTCTACCAGCCAGAA		
13	SOX17_Fwd	GCTTTCATGGTGTGGGCTAA	NM_022454.3	Endoderm
14	SOX17_Rev	GAGTTGAGCAAGATGCTGGG		
15	SMA(ACTA2)_Fwd	ACCCACAATGTCCCCATCTA	NM_001613.3	Mesoderm
16	SMA(ACTA2)_Rev	GAAGGAATAGCCACGCTCAG		
17	Brachyury T_Fwd	AGGGAAGGTGGATCTCAGGT	NM_003181.3	Mesoderm
18	Brachyury T_Rev	AGTACCGAGTGGACCACCTG		
19	Hand1_Fwd	CGCCTAGCCACCAGCTACATC	NM_004821.2	Mesoderm
20	Hand1_Rev	CGCCATCCGCCTTCTTGAGTT		
21	KDR_Fwd	AGCGATGGCCTCTTCTGTAA	NM_002253.3	Mesoderm
22	KDR_Rev	ACACGACTCCATGTTGGTCA		
23	ACAN_Fwd	ACCGCATCTAATTTGTCCGC	NM_001135.4	Mesoderm
24	ACAN_Rev	AACGATTGCACTGCTCTTGG		(Collagen type)
25	Col1A1_Fwd	AAGCAACCCAAACTGAACCC	NM_000088.4	Mesoderm
26	Col1A1_Rev	TTCAAGCAAGTGGACCAAGC		(Collagen type)
27	ALP_Fwd	GGTCCCCTTCTGCTTCTTCT	AH_005272.2	Mesoderm
28	ALP_Rev	GGCTTTCTCTGGGTCTCTGT		(Collagen type)
29	Tuj1(Tubulin beta3)_Fwd	AACGAGGCCTCTTCTCACAA	NM_006086	Ectoderm
30	Tuj1(Tubulin beta3)_Rev	GGCCTGAAGAGATGTCCAAA		
31	PAX6_Fwd	TGTGTGCTCTGAAGGTCAGG	NM_000280.4	Ectoderm
32	PAX6_Rev	CTGGAGCTCTGTTTGGAAGG		
33	Nestin_Fwd	AACAGCGACGGAGGTCTCTA	NM_006617.1	Ectoderm
34	Nestin_Rev	TTCTCTTGTCCCGCAGACTT		

Table S2. Patient-derived somatic cells information

ID	Description	Affected	Product	Source	Gene	Mutation	Sex	Age at sampling
GM05112	Muscular Dystrophy, Duchenne type; DMD; Congenital Muscle Disease	Yes	Fibroblast	Skin, Untransformed	DMD	EX45DEL	Male	13 YR
GM01695	Muscular Dystrophy, Duchenne type; DMD; Congenital Muscle Disease	Yes	Fibroblast	Disorders of connective tissue, Muscle, Bone	DMD	-	Female	26 YR
GM13280	Telangiectasia, Hereditary hemorrhagic, HHT; Heritable disease	Yes	Fibroblast	Other disorders of known biochemistry, Untransformed	HHT	-	Male	16 YR
GM03419	Telangiectasia, Hereditary hemorrhagic, HHT; Heritable disease	Yes	Fibroblast	Other disorders of known biochemistry, Untransformed	HHT		Female	7 YR