Supplementary Table 1. Single cell mRNA sequencing of 17 cells exposed to our transdifferentiation protocol.

				Sequenced cell*																
Explanation	**Marker type**	**Coding number**	**Gene symbol**	**a**	**b**	**c**	**d**	**e**	**f**	**g**	**h**	**i**	**j**	**k**	**l**	**m**	**n**	**o**	**p**	**q**	**SH-SY5Y****
NeuN transcription factor	mature neurons	ENSG00000167281	*RBFOX3*	0.26	0.27	1.19	1.24	0.24	0.16	0.56	0.85	1.86	0.44	0.36	0.55	0.29	0.86	0.88	3.50	0.65	0.4
vGLUT1	glutamatergic neurons	ENSG00000104888	*SLC17A7*																		0.4
vGLUT2	glutamatergic neurons	ENSG00000091664	*SLC17A6*																		0
NMDAR1	glutamatergic neurons	ENSG00000176884	*GRIN1*		0.56																4.2
NMDAR2B	glutamatergic neurons	ENSG00000273079	*GRIN2B*																		0
Glutaminase	glutamatergic neurons	ENSG00000115419	*GLS*	1.39	0.29	1.33		1.80	2.12	1.25	65.8	22.5	1.16	87.90		0.98	22.1	13.9		6.42	49.6
GABA transporter 1	gabaergic neurons	ENSG00000157103	*SLC6A1*																		0
GABA type B receptor, subunit 1	gabaergic neurons	ENSG00000204681	*GABBR1*																		1.1
GABA type B receptor, subunit 2	gabaergic neurons	ENSG00000136928	*GABBR2*																		0
Glutamate decarboxylase 1 (67KDa)	gabaergic neurons	ENSG00000128683	*GAD1*			0.90															2.1
Glutamate decarboxylase 2 (65KDa)	gabaergic neurons	ENSG00000136750	*GAD2*																		0
Tyrosine hydroxylase	dopaminergic neurons	ENSG00000180176	*TH*																		0
DAT, Dopamine Transporter	dopaminergic neurons	ENSG00000142319	*SLC6A3*																		0
A transcriptional activator that regulates differentiation of dopaminergic neurons	dopaminergic neurons	ENSG00000125798	*FOXA2*																		0
Girk2, a G-protein present in certain dopaminergic neurons	dopaminergic neurons	ENSG00000157542	*KCNJ6*	0.67	0.13	0.48	0.80	0.31	0.33	0.24	0.95	0.24	0.28		0.14	0.18	0.50	0.14	0.33	0.46	0
Nurr1, a transcription factor that induces TH expression and subsequently dopaminergic neuron differentiation	dopaminergic neurons	ENSG00000153234	*NR4A2*						0.18					7.38			28.1				0.1
A transcription factor involved in a number of processes during dopaminergic neuron development	dopaminergic neurons	ENSG00000136944	*LMX1B*	0.19	0.40	0.43	1.00			0.30	0.18	0.42	0.26		0.25	0.95	0.17	0.82		0.14	1.6
Tryptophan hydroxylase, an enzyme involved in serotonin synthesis	serotonergic neurons	ENSG00000129167	*TPH1*	0.63	0.20	59.30	0.79	0.45		0.35	0.50	0.14	0.49	0.16	0.54	0.14	0.38	0.21		0.12	0.3
Tryptophan hydroxylase, an enzyme involved in serotonin synthesis	serotonergic neurons	ENSG00000139287	*TPH2*	0.39	0.12	0.86		0.22					0.79				0.17	0.20		0.77	0
Serotonin transporter	serotonergic neurons	ENSG00000108576	*SLC6A4*			0.19	0.49	0.95		0.15		0.38	0.14				0.12			0.28	0
PET1, transcription repressor implicated in the differentiation of serotonergic neurons	serotonergic neurons	ENSG00000163497	*FEV*																		34.6
Cholin acetyltransferase	cholinergic neurons	ENSG00000070748	*CHAT*																		0
VAChT	cholinergic neurons	ENSG00000187714	*SLC18A3*																		7.6
acetylcholinesterase	cholinergic neurons	ENSG00000087085	*ACHE*			0.24															2.1
Insulin gene enhancer protein	motor neurons	ENSG00000016082	*ISL1*																		307.2
Motor neurons and pancreas homeobox 1	motor neurons	ENSG00000130675	*MNX1*																		0

*Empty boxes correspond to a level of expression of zero.
**Human neuroblastoma cells for comparison (data taken from the Human Protein Atlas database).