

Table S6. Timeline and patient samples used in study, related to Figures 1-7. Panel A is the experimental timeline that depicts time since amniocentesis, culture time at ARUP Labs (red bar) and culture time in our lab (green bar). **Table S6B** is a summary of total patient samples used in this study. (Patient samples were de-identified and new patient numbers were given in a general order they were received). (X marks) in table indicates type of analysis tested for each sample. **Table S6C** summarizes RNA-seq samples and read counts. **Table S6D** is a complete list of antibodies used in this study. **Table S6E** is a complete list of primers used in this study.

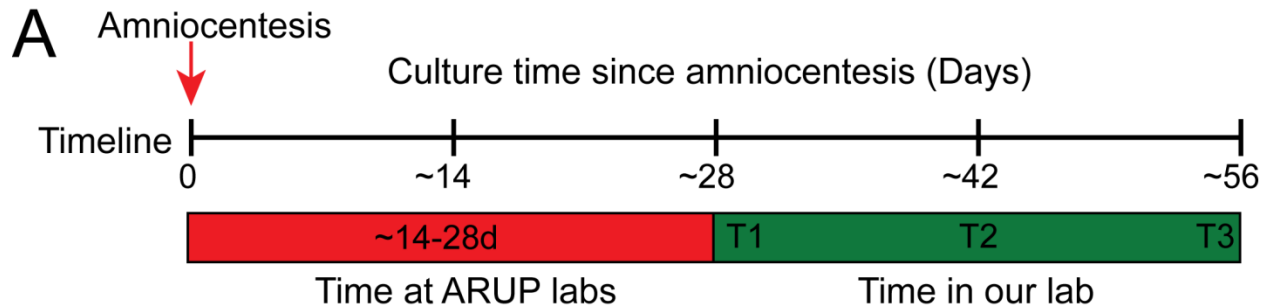


Table S6B. Summary of 60 patient samples used in this study.

Patient	IHC	FACS	qPCR	RNA-seq	Clonal Analysis	G.A.	Gender	T1	T2	T3
A7	X					15	XX			
A8	X					34	XX			
A10	X					16	XX			
A11	X					16	XX			
A19	X	X				17	XY			
A26	X					16	XX			
A29	X					19	XX			
A35	X					28	XY			
A39	X					33	XY			
A42	X					15	XY			
A48	X					14	XY			
A49	X					25	XY			
A50	X					30	XX			
A52	X					15	XX			
A53	X					30	XX			
A54	X					15	XX			
A60				X		16	XY	X	X	X
A63	X		X	X		15	XY	X	X	X
A64				X		16	XY	X	X	X
A65			X	X		15	XY			
A67			X	X		16	XX	X	X	X
A68			X	X		32	XY			
A70	X					17	XX	X	X	

A71	X		X	X		15	XY			
A72	X		X	X		16	XY			
A73				X		16	XX	X	X	X
A74	X			X		17	XX	X	X	X
A77	X		X	X		25	XX	X	X	X
A78	X		X	X		36	XX	X	X	X
A79	X					16	XY			
A81	X		X	X		30	XY	X	X	X
A90	X					17	XY			
A92	X					30	XX			
A94	X					17	XX			
A95			X	X		25	XX	X	X	X
A96				X		35	XX	X	X	X
A97	X					14	XY			
A98	X					17	XY			
A99	X					18	XX			
A101	X					17	XY			
A102			X	X		33	XX			
A103				X		33	XX	X	X	X
A104	X					16	XX			
A105	X					16	XY			
A106			X	X		35	XX			
A108	X					17	XY			
A111	X		X	X		17	XX			
A112	X					17	XX			
A113	X		X	X		17	XY			
A114	X		X	X		16	XY			
A115	X		X	X		17	XY			
A116	X					17	XY			
A117	X		X	X		30	XY			
A123	X					30	XY			
A190	X					19	XX			
A194	X					15	XY			
A200	X					28	XX			
A203	X					25	XX			
A208	X					21	XX			
FAF2	X					28	XX			
A256	X					18	XX			
A259	X					16	XY			
A262	X					19	XY			
A263	X					19	XY			
A264	X				X	16	XY			
A265	X					17	XY			
A267	X					20	XY			
A270					X	22	XY			
A272	X				X	16	XY			
A273	X				X	17	XX			
A274	X				X	17	XY			
A275					X	16	XX			

A276					X	17	XX			
A277					X	26	XY			
A279	X					18	XY			
A280	X					18	XY			
A283	X					12	XY			
A285	X					17	XX			
A292	X					21	XY			
A293	X					37	XY			

Table S6C. Summary of RNA-seq samples and read counts.

Sample type	Samples	Annot. reads	Bam reads	Fq reads
Amniocyte	37	762,109,834	854,402,347	1,062,390,986
Fibroblast (NFF)	3	46,912,878	58,622,479	69,029,796
ESC	19	341,808,026	428,229,138	487,291,117
IPSC	12	208,763,583	266,818,498	299,695,459

Table S6D. Complete list of antibodies used in this study.

Antigen	Cat #	Antigen species	Host	Mono/poly	Isotype	Conc. (Working Dilution)	Staining detected in amniocytes
α -Actinin	Sigma (A7732)	Rabbit	M	M	IgG1	1.0mg/ml (1:300)	Yes
Cgb1	Abcam (ab9376)	Human	Rb	P	IgG	N/A (1:300)	No
cKit	Millipore (MAB1163)	Human	M	M	IgG2a	1mg/ml (1:200)	No
cKit	Biologend (313201)	Human	M	M	IgG1	0.5mg/ml (1:200)	No
cKit	Cell Signaling (Ab81)	Human	M	M	IgG1	N/A (1:200)	Yes
c-myc	DSHB (9E10)	Human	M	M	IgG1	50ug/ml (1:50)	No
α -Fetoprotei	R&D Systems	Human	M	M	IgG1	500ug/ml	Yes

n	(MAB1368)					(1:300)	
JMJD3	Novus Biologicals (NBP1-06640)	Mouse	Rb	P	IgG	1.75mg/ml (1:500)	No
Klf4	Millipore (09-821)	Synthetic mouse	Rb	P	IgG	N/A (1:300)	Yes
Lin28	Cell Signaling (3695)	human	Rb	P	IgG	N/A (1:200)	No
Nanog	Abcam (ab21624)	Human	Rb	P	IgG	0.2mg/ml (1:200)	No
Nanog	Cell signaling (4903)	Human	Rb	P	IgG	N/A (1:200)	No
Nanog	Millipore (AB5731)	Mouse	Rb	P	IgG	1.9mg/ml (1:200)	Yes
Oct4	Abcam (19857)	Human	Rb	P	IgG	0.6mg/ml (1:200)	Yes
Oct4	Cell Signaling (2750)	Human	Rb	P	IgG	N/A (1:200)	No
Oct4	Santa Cruz (sc-9081)	Human	Rb	P	IgG	200ug/ml (1:200)	Yes
PCNA	Abcam (Ab29)	Rat	M	M	IgG2a	1mg/ml (1:300)	Yes
PH3	Santa Cruz (sc-8656-R)	Human	Rb	P	IgG	200ug/ml (1:300)	Yes
Sox2	Cell Signaling (5024)	Human	Rb	P	IgG	N/A (1:200)	Yes
Sox2	Cell Signaling (3509)	Human	Rb	P	IgG	N/A (1:200)	No
Sox2	BioLegend (630802)	Human	Rb	P	IgG	0.25mg/ml (1:200)	Yes

Sox17	R&D Systems (AF1924)	Human	Goat	P	IgG	0.2mg/ml (1:300)	Yes
SM22 α	Abcam (ab14106)	Mouse	Rb	P	IgG	N/A (1:800)	Yes
SSEA1	DSHB (MC-480)	Mouse	M	M	IgM	28ug/ml (1:50)	Yes
SSEA3	DSHB (MC-631)	Rat	M	M	IgM	40ug/ml (1:50)	Yes
SSEA4	DSHB (MC-813-70)	Mouse	M	M	IgG3	52ug/ml (1:50)	Yes
Tra-1-60	Millipore (MAB4360)	Human	M	M	IgM	1mg/ml (1:300)	Yes
Tra-1-60	Cell Signaling (4746)	Human	M	M	IgM	N/A (1:300)	No
Tra-1-81	Millipore (MAB4381)	Human	M	M	IgM	1mg/ml (1:300)	Yes
Tra-1-81	Abcam (ab16289)	Human	M	M	IgM	1mg/ml (1:300)	No
Tra-2-49	DSHB (6E)	Mouse	M	M	IgG1	36ug/ml (1:50)	No
Tra-2-54	DSHB (2J)	Mouse	M	M	IgG1	16ug/ml (1:50)	No
Tubb3	Abcam (ab78078)	Rat	M	M	IgG2a	1mg/ml (1:300)	Yes
TSA-1	Santa Cruz (sc-23087)	Human	G	P	IgG	200 μ g/ml (1:200)	Questionable
Wdr5	Abcam	Human	M	M	IgG2b	0.50mg/ml (1:200)	Yes

Table S6E. Genes, accession numbers, and primer sets used in this study.

<u>Gene</u>	<u>Ensgene_id</u>	<u>Refseq_id</u>	<u>Marker</u>	<u>Forward Seq (5'-3')</u>
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				Reverse Seq (5'-3')
Oct4 (Pou5f1)	ENSG00000204531	NM_001173531	Puripotency/iPSC factor	caatttgccaagctcctga
				cagatggctcttttggtgaac
Sox2	ENSG00000181449	NM_003106	Pluripotency/iPSC factor	ctccgggacatgatcagc
				ggtagtgctgggacatgtgaa
Nanog	ENSG00000111704	NM_024865	Pluripotency/iPSC factor	tccaacatcctgaacctca
				ttgctattcttcggccagtt
Klf4	ENSG00000136826	NM_004235	Transcriptional repressor/iPSC factor	gggagaagacactgctca
				ggaagcactgggggaagt
Wdr5	ENSG00000196363	NM_017588	Pluripotency	agagtggtggaagttcat
				tgacgaccaggctacatcg
Fut4	ENSG00000196371	NM_002033	Pluripotency	tcttggtgtaccgggattc
				aggttacctcaaaacctgaactc
Kit (ckit)	ENSG00000157404	NM_000222	Stem cell marker	gcagattcagagagcacca
				gtcgtgcacaagcagagg
Gapdh	ENSG00000111640	NM_002046	Reference	ctctgctcctctgttcgac
				gccaatacgaccaaatcc