Supplemental materials legend

Supplemental materials legend

Figure S1

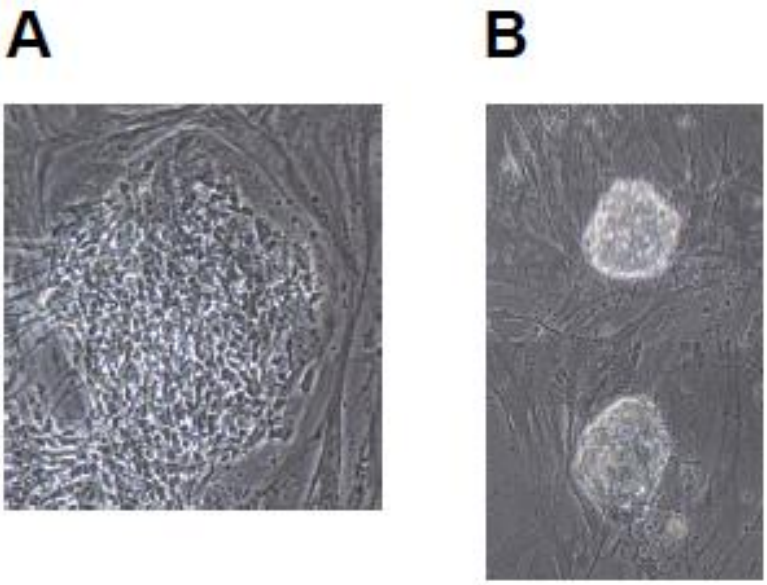
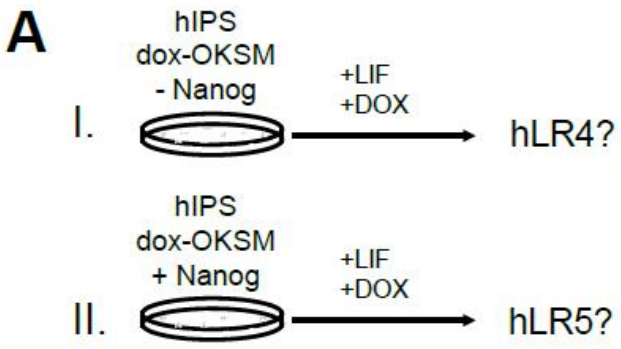


Figure S2


A
hIPS
dox-OKSM
- Nanog
+LIF
+DOX
I.
hLR4?
hIPS
dox-OKSM
+ Nanog
+LIF
+DOX
II.
hLR5?

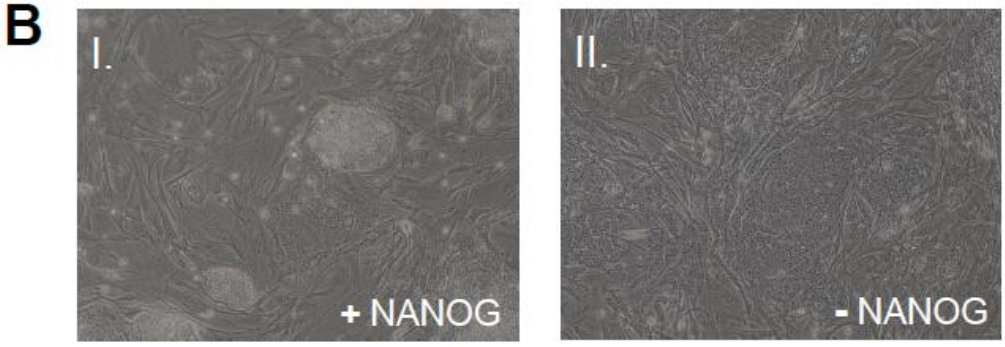

B
I.
+ NANOG
II.
- NANOG

Figure S3

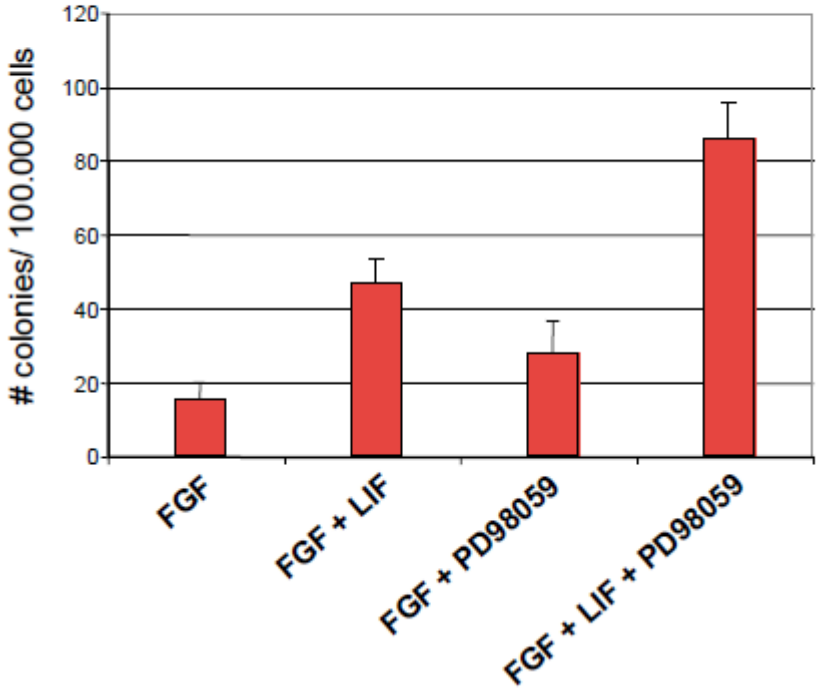

colonies/ 100.000 cells
120
100
80
60
40
20
0
FGF
FGF + LIF
FGF + PD98059
FGF + LIF + PD98059

Figure S4

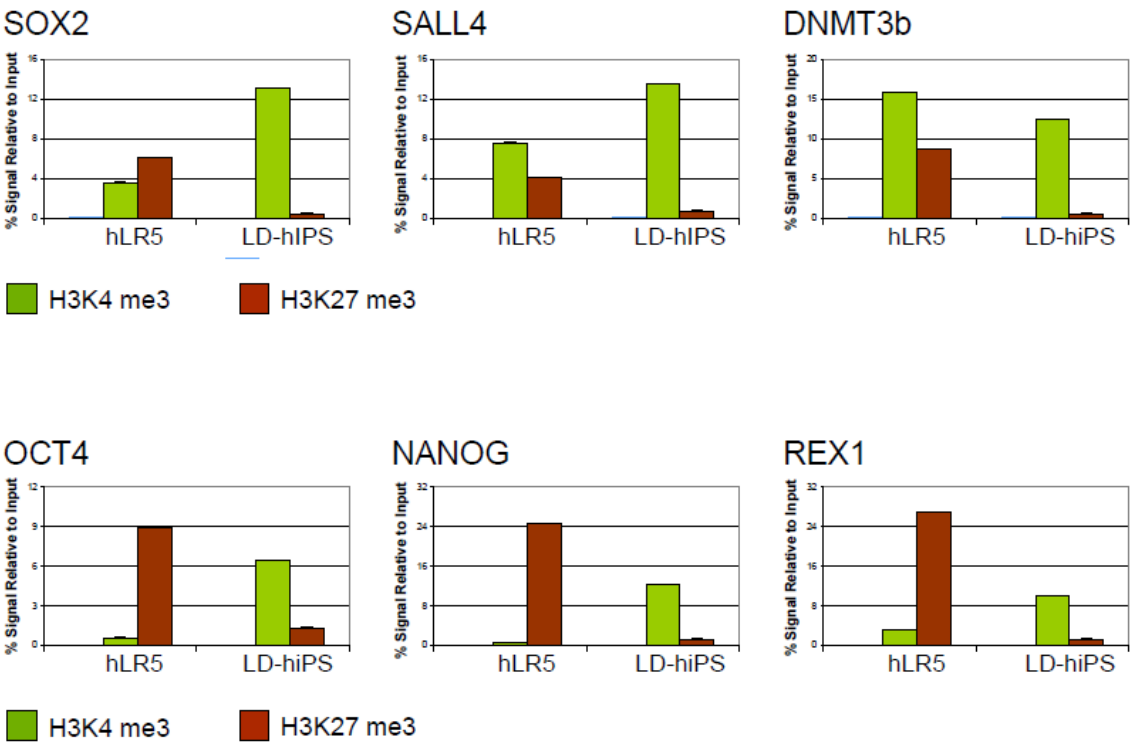
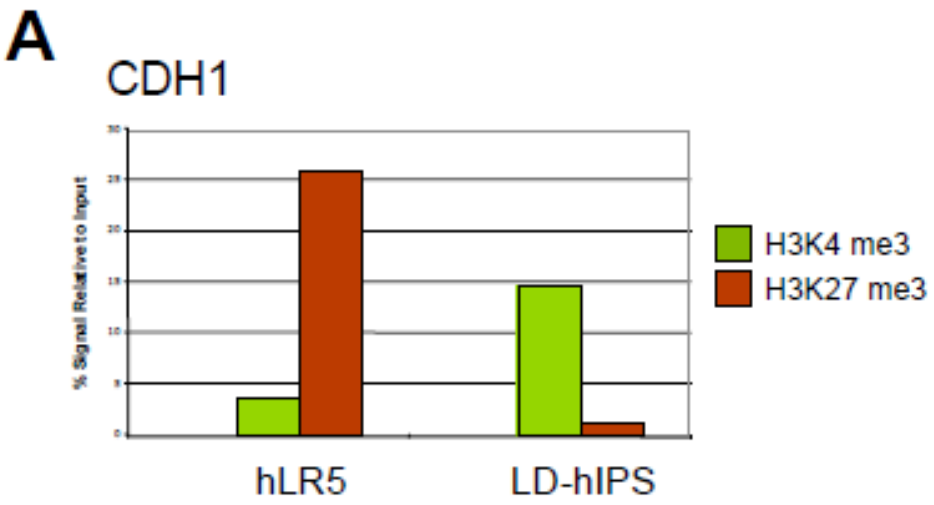

SOX2
SALL4
DNMT3b
% Signal Relative to Input
hLR5
LD-hIPS
LD-hiPS
H3K4 me3
H3K27 me3
OCT4
NANOG
REX1

Figure S5


A
CDH1
% Signal Relative to Input
H3K4 me3
H3K27 me3
hLR5
LD-hIPS

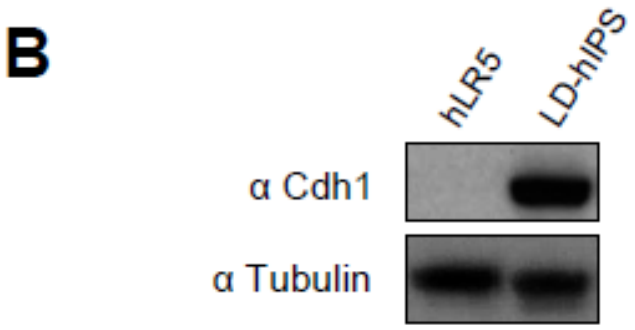

B
hLR5
LD-hIPS
α Cdh1
α Tubulin

Figure S1: Colony morphologies during the derivation of hLR5 cells.
A: Typical irregular colony morphology of colonies that appear early and cannot be propagated after picking. B: Morphology of emering hLR5 colonies.

Figure S2: Direct conversion of existing hiPS cells into hLR5 cells. A: Schematic representation of the conversion of hiPS cells into hLR5 cells in the absence (top panel) or presence (bottom panel) of ectopic NANOG. B. Morphology of the iPS cells after 3 trypsin passages in hLR5 media in the presence (left panel) or absence (right panel) of NANOG

Figure S3: Conversion rate of hLR5 cells into LD-hiPS cells is influenced by growth factors and inhibition of MEK signaling. Bar graph indicates the average number of stable pluripotent LD-hiPS colonies obtained after plating of 100.000 hLR5 cells in the presence of the indicated combinations of growth factors and MEK inhibtor (PD98059, 50 μM).

Figure S4: Reactivation of pluripotency mediators upon hLR5 to LD-hiPS conversion
Chomatin immunoprecipitation and quantitative PCR analysis of the presence of Histone 3 lysine 4 (H3K4, green bars) marks and Histone 3 Lysine 27 (H3K27, red bars) marks at the promoter regions of Sox2, Sall4, Dnmt3b, Oct4, NANOG and Rex1 as indicated in hLR5 cells and LD-hiPS cells.

Figure S5: Reactivation of E-Cadherin upon hLR5 to LD-hiPS conversion
A: Chomatin immunoprecipitation and quantitative PCR analysis of the presence of Histone 3 lysine 4 (H3K4, green bars) marks and Histone 3 Lysine 27 (H3K27, red bars) marks at the E-Cadherin (Cdh1) promoter in hLR5 cells and LD-hiPS cells as indicated.
B: Western blot analysis of E-Cadherin (Cdh1) expression in hLR5 cells and LD-hiPS cells as indicated.

ChIP-PCR primer sequences

Promotor	forward	reverse
Oct4	AAAGCAATCCTTCTGCTCCA	TAACATAGCAAGGCCCCATC
Sox2	GCGTCCCATCCTCATTTAAG	GCCTTTTCGAAGGAAGTGG
Nanog	CACGGCCTCCCAATTTACT	TGGTTCAACAGGAATGGGATA
Zfp42 (Rex1)	TCCGGCCTAAAAGGGTAAAT	GTTGGCACGTGGTGAGC
Zfp42 (Rex1)	CGCGTCCGGCCTAAA	GGCAGCGCCTCCAGA
DNMT3b	GTCCAAAGCAGGATGACAGG	GCACCAGAGTCTCCGCTTTA
Sal4	CCATCCTTGCTCCAGCTATC	GCCGTTCCAAAACTTCTACG
Actin	GTGGACATCTCTTGGGCACT	TCTGCAGGAGCGTACAGAAC