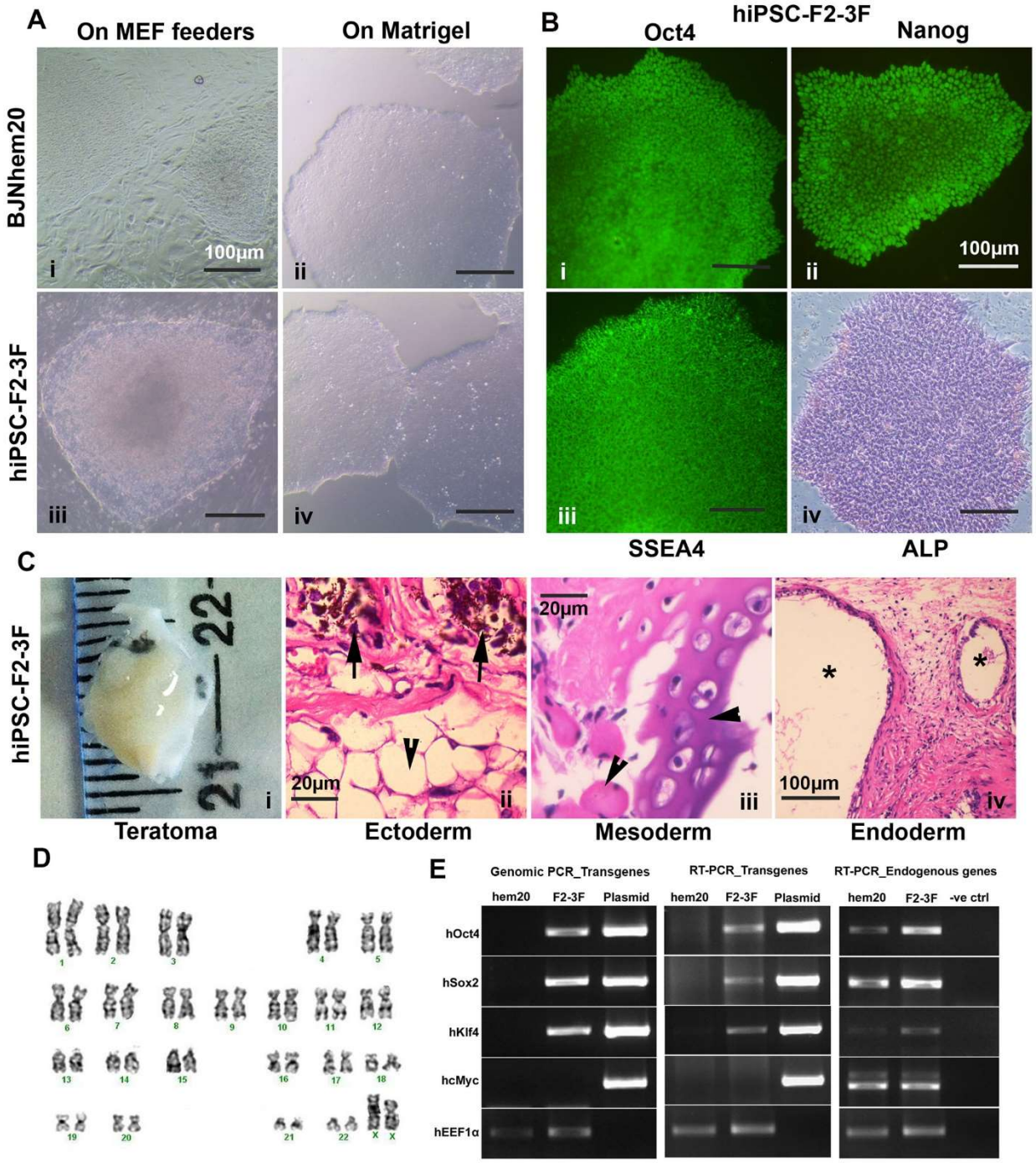
Original Reference:

Susaimanickam PJ, Maddileti S, Pulimamidi VK, Boyinpally SR, Naik RR, Naik MN, Reddy GB, Sangwan VS, **Mariappan I** (2017). Generating minicorneal organoids from human induced pluripotent stem cells. *Development.* 144(13): 2338-2351.

Figure S1. Derivation and characterization of a human induced pluripotent stem cell line. (A) Growing colony morphology of BJNhem20 cells (i-ii) and hiPSC-F2-3F1 cells at passage p0 on irradiated MEF feeders (iii) and at passage p20 on Matrigel coated plates (iv). (B) Immunocytochemistry of hiPSC-F2-3F1 cells at p20 on Matrigel coated chamber slides showing a homogenous expression of OCT4 (i), NANOG (ii), SSEA4 (iii) and alkaline phosphatase (iv). (C) A teratoma of about 8X8 mm, formed by hiPSC-F2-3F1 cells at p25, transplanted in the sub-cutaneous space of nude mice (i). H&E staining of tissue sections reveal the development of ectoderm derived RPE-like pigmented cell patches (arrow, ii), mesoderm derived adipose, cartilage and muscle tissues (arrow heads, iii) and endoderm derived gut epithelium like structures (*; asterisk, iv). (D) G-band karyotype of hiPSC-F2-3F1 cells at p20, confirmed a normal chromosomal pattern for this female line. (E) Genomic PCR profiles of transgene specific amplicons confirmed the genomic integration of human *OCT4, SOX2* and *KLF4* but not the *cMYC* transgenes (i). RT-PCR profiles of transgene-specific amplicons confirmed the genomic integration and expression of all transgenes except *cMYC,* at p20 (ii). RT-PCR profiles of endogenous gene specific amplicons confirmed the expression of all four transcripts, at levels comparable to that of BJNhem20, hESCs (iii). Plasmid DNA and no-RT samples were used as PCR controls. Genomic DNA and cDNA samples were normalized using eukaryotic elongation factor (*EEF1α*) as the loading control. Scale bars, 100 μm or as specified.


A
On MEF feeders
On Matrigel
BJNhem20
hiPSC-F2-3F
100µm
i
ii
iii
iv
B
hiPSC-F2-3F
Oct4
Nanog
SSEA4
ALP
C
hiPSC-F2-3F
20µm
100µm
Teratoma
Ectoderm
Mesoderm
Endoderm
D
E
Genomic PCR_Transgenes
RT-PCR_Transgenes
RT-PCR_Endogenous genes
hem20
F2-3F
Plasmid
-ve ctrl
hOct4
hSox2
hKlf4
hcMyc
hEEF1α