Claims

1. A porcine, ovine or canine induced pluripotent stem cell (iPSC), wherein the iPSC expresses one or more or all of the genes selected from LMNA, HTRA1, PHLDA1, FGF1 and GASK1B.

2. A porcine, ovine or canine iPSC according to claim 1, wherein the iPSC expresses all of LMNA, HTRA1, PHLDA1, FGF1 and GASK1B.

23. A porcine, ovine or canine iPSC according to claim 1 or 2, derived from a neural stem cell (NSC).

34. A porcine iPSC according to ~~either~~ any of claims 1 ~~or 2~~to 3.

5. An ovine iPSC according to any of claims 1 to 3.

46. A porcine, ovine or canine iPSC according to any preceding claim, wherein the iPSC additionally expresses all of NANOG, REX1, SSEA-3 and SSEA-4.

57. A population of porcine, ovine or canine iPSCs, wherein at least 50% of the iPSCs express all of the genes selected from LMNA, HTRA1, PHLDA1, FGF1 and GASK1B.

~~6. A population of porcine or canine iPSCs according to claim 5, wherein at least 80% of the iPSCs express all of the genes selected from LMNA, HTRA1, PHLDA1, FGF1 and GASK1B.~~

78. A population of porcine, ovine or canine iPSCs according to ~~either of~~ claim~~s~~ ~~5 or 6~~7, wherein at least 90% of the iPSCs express one or more or all of the genes selected from LMNA, HTRA1, PHLDA1, FGF1 and GASK1B.

89. A population of porcine, ovine or canine iPSCs according to ~~any~~ either one of claims ~~5-~~7 or 8, wherein at least 95% of the iPSCs express all of the genes selected from LMNA, HTRA1, PHLDA1, FGF1 and GASK1B.

910. A population of porcine, ovine or canine iPSCs according to any one of claims 5-87-9, derived from neural stem cells (NSCs).

1011. A method of inducing pluripotency, comprising culturing porcine, ovine or canine neural stem cells (NSCs) in the presence of non-integrating vectors that express one or more reprogramming factors.

1112. A method according to claim 1011, wherein the reprogramming factors are selected from two or more or all of Oct4, Sox2, cMyc and Klf4.

1213. A method according to either of claims 10 11 or 1112, wherein the reprogramming factors are Oct4 and cMyc.

1314. A method according to any of claims 10-1211-13, wherein the vectors are ~~viral vectors, e.g.~~ Sendai viral vectors.

1415. A method according to any of claims 10 11 to 1314, for producing porcine, ovine or canine iPSCs that express all of the genes selected from LMNA, HTRA1, PHLDA1, FGF1 and GASK1B.

~~15. A method according to any of claims 10 to 14, for producing porcine iPSCs.~~