

Supplementary information, Table S6 Significantly enriched KEGG pathways by Yamanaka factors

Significantly enriched KEGG pathways by endogenous Yamanaka factors in E14.1 mouse ES cells	Significantly enriched KEGG pathways by ectopically over-expressed Yamanaka factors in J1 mouse ES cells
Wnt signaling pathway	Wnt signaling pathway
Valine, leucine and isoleucine degradation	Valine, leucine and isoleucine degradation
Urea cycle and metabolism of amino groups	Urea cycle and metabolism of amino groups
Transcription factors	Transcription factors
Thyroid Cancer	Thyroid Cancer
TGF-beta signaling pathway	TGF-beta signaling pathway
T cell receptor signaling pathway	T cell receptor signaling pathway
Taurine and hypotaurine metabolism	Taurine and hypotaurine metabolism
Streptomycin biosynthesis	Streptomycin biosynthesis
Sphingolipid metabolism	Sphingolipid metabolism
Small cell lung cancer	Small cell lung cancer
Ribosome	Ribosome
Regulation of actin cytoskeleton	Regulation of actin cytoskeleton
Pyrimidine metabolism	Pyrimidine metabolism
Purine metabolism	Purine metabolism
Proteasome	Proteasome
Prostate cancer	Prostate cancer
Progesterone-mediated oocyte maturation	Progesterone-mediated oocyte maturation
Pentose phosphate pathway	Pentose phosphate pathway
Pancreatic cancer	Pancreatic cancer
p53 signaling pathway	p53 signaling pathway
Oxidative phosphorylation	Oxidative phosphorylation
One carbon pool by folate	One carbon pool by folate
Notch signaling pathway	Notch signaling pathway
Non-small cell lung cancer	Non-small cell lung cancer
Nitrogen metabolism	Nitrogen metabolism
N-Glycan degradation	N-Glycan degradation
Methionine metabolism	Methionine metabolism
Methane metabolism	Methane metabolism
Melanoma	Melanoma
Melanogenesis	Melanogenesis
Maturity onset diabetes of the young	Maturity onset diabetes of the young
MAPK signaling pathway	MAPK signaling pathway
Jak-STAT signaling pathway	Jak-STAT signaling pathway
Insulin signaling pathway	Insulin signaling pathway
Huntington's disease	Huntington's disease
High-mannose type N-glycan biosynthesis	High-mannose type N-glycan biosynthesis
Hedgehog signaling pathway	Hedgehog signaling pathway
GnRH signaling pathway	GnRH signaling pathway

Glycosphingolipid biosynthesis - ganglioseries	Glycosphingolipid biosynthesis - ganglioseries
Glycosaminoglycan degradation	Glycosaminoglycan degradation
Glycolysis / Gluconeogenesis	Glycolysis / Gluconeogenesis
Glutamate metabolism	Glutamate metabolism
Glioma	Glioma
Gap junction	Gap junction
Fructose and mannose metabolism	Fructose and mannose metabolism
Focal adhesion	Focal adhesion
ErbB signaling pathway	ErbB signaling pathway
Endometrial cancer	Endometrial cancer
Colorectal cancer	Colorectal cancer
Chronic myeloid leukemia	Chronic myeloid leukemia
Chaperones and folding catalysts	Chaperones and folding catalysts
Cell cycle	Cell cycle
Carbon fixation	Carbon fixation
Butanoate metabolism	Butanoate metabolism
Bladder cancer	Bladder cancer
Biosynthesis of steroids	Biosynthesis of steroids
beta-Alanine metabolism	beta-Alanine metabolism
Basal cell carcinoma	Basal cell carcinoma
Axon guidance	Axon guidance
Apoptosis	Apoptosis
Amyotrophic lateral sclerosis (ALS)	Amyotrophic lateral sclerosis (ALS)
Alzheimer's disease	Alzheimer's disease
Alanine and aspartate metabolism	Alanine and aspartate metabolism
Adherens junction	Adherens junction
Acute myeloid leukemia	Acute myeloid leukemia
Valine, leucine and isoleucine biosynthesis	Vitamin B6 metabolism
Type II diabetes mellitus	VEGF signaling pathway
Two-component system	Ubiquitin mediated proteolysis
Terpenoid biosynthesis	Tyrosine metabolism
Riboflavin metabolism	Tryptophan metabolism
Protein kinases	Translation factors
Propanoate metabolism	Tight junction
Phenylpropanoid biosynthesis	Starch and sucrose metabolism
Peptidoglycan biosynthesis	Selenoamino acid metabolism
Pantothenate and CoA biosynthesis	RNA polymerase
Olfactory transduction	Renin - angiotensin system
Long-term potentiation	Protein folding and associated processing
Inositol phosphate metabolism	PPAR signaling pathway
Heparan sulfate biosynthesis	Porphyrin and chlorophyll metabolism
Hematopoietic cell lineage	Pores ion channels
Glycerolipid metabolism	Phenylalanine metabolism
gamma-Hexachlorocyclohexane degradation	Phenylalanine, tyrosine and tryptophan biosynthesis

Fatty acid metabolism	Parkinson's disease
Fatty acid elongation in mitochondria	Other transporters
Epithelial cell signaling in Helicobacter pylori infection	Other translation proteins
Dorso-ventral axis formation	Other replication, recombination and repair proteins
DNA polymerase	Other ion-coupled transporters
Cytokine-cytokine receptor interaction	Other enzymes
Circadian rhythm	Nucleotide sugars metabolism
Bile acid biosynthesis	Novobiocin biosynthesis
B cell receptor signaling pathway	Nicotinate and nicotinamide metabolism
Alkaloid biosynthesis I	Naphthalene and anthracene degradation
3-Chloroacrylic acid degradation	Lysine degradation
1- and 2-Methylnaphthalene degradation	Lysine biosynthesis
1,2-Dichloroethane degradation	Lipoic acid metabolism
	Leukocyte transendothelial migration
	Histidine metabolism
	GTP-binding proteins
	Glyoxylate and dicarboxylate metabolism
	Glycosphingolipid biosynthesis - globoseries
	Glycine, serine and threonine metabolism
	Glycerophospholipid metabolism
	Glutathione metabolism
	General function prediction only
	Galactose metabolism
	Folate biosynthesis
	Cytoskeleton proteins
	Cyanoamino acid metabolism
	Citrate cycle (TCA cycle)
	Cell cycle - yeast
	CAM ligands
	Basal transcription factors
	Ascorbate and aldarate metabolism
	Androgen and estrogen metabolism
	Aminophosphonate metabolism
	Aminoacyl-tRNA biosynthesis