

Induced pluripotent stem cells (iPSCs) are the cells established by introducing several transcription factors into the somatic cells and culturing them in embryonal stem cell (ESCs) culture conditions. Factors used for the establishment of the first iPSCs are OCT3/4, SOX2, KLF4 and c-MYC. iPSCs created by these means resemble closely to the ESCs. IPS technology may be used to derive iPS cells of individual patients and apply these cells for their treatment in the cases where the use of ESCs represents an ethical and immunological problem. Therefore, it is important to establish an appropriate animal model for the longtime safety testing of iPSCs before acceding to their medicinal application.