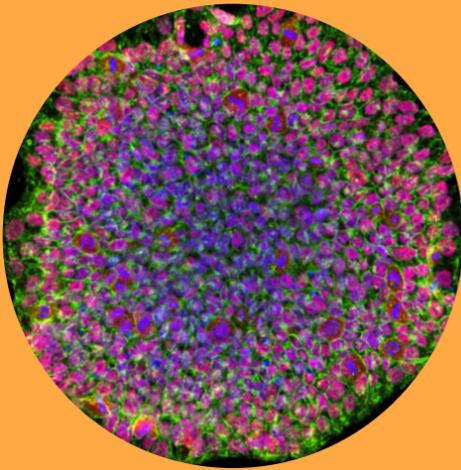


How are Induced pluripotent stem cells (iPSCs) and Embryonic stem cells (ESCs) different ?

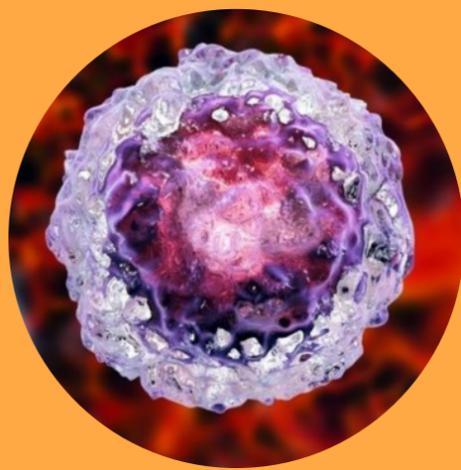
Induced pluripotent stem cells (iPSCs)

Generated by cellular reprogramming from adult cells (skin or blood cells)



Embryonic stem cells (ESCs)

Derived from the inner cell mass of a blastocyst (an early-stage embryo)



Similarities

Both ESCs and iPSCs can differentiate into any cell type in the body, making them valuable for research and potential therapies

They can divide and replicate indefinitely under appropriate culture conditions

They are used in regenerative medicine, disease modeling, and drug development due to their ability to generate various cell types.

Key differences

No ethical concerns due to their origin

Ethical concerns due to the destruction of embryos to obtain them

Allows patient-specific disease modeling and drug response

Limited to generic models without patient genetic background

No risk of immune rejection for cell therapy

Increased risk of immune rejection for cell therapy

The LIRM is a non-profit organization dedicated to improve care for aging patients through innovation.

“Changing the course of chronic and age-related disease”

