Stem cells therapy

- Used at the most different diseases:

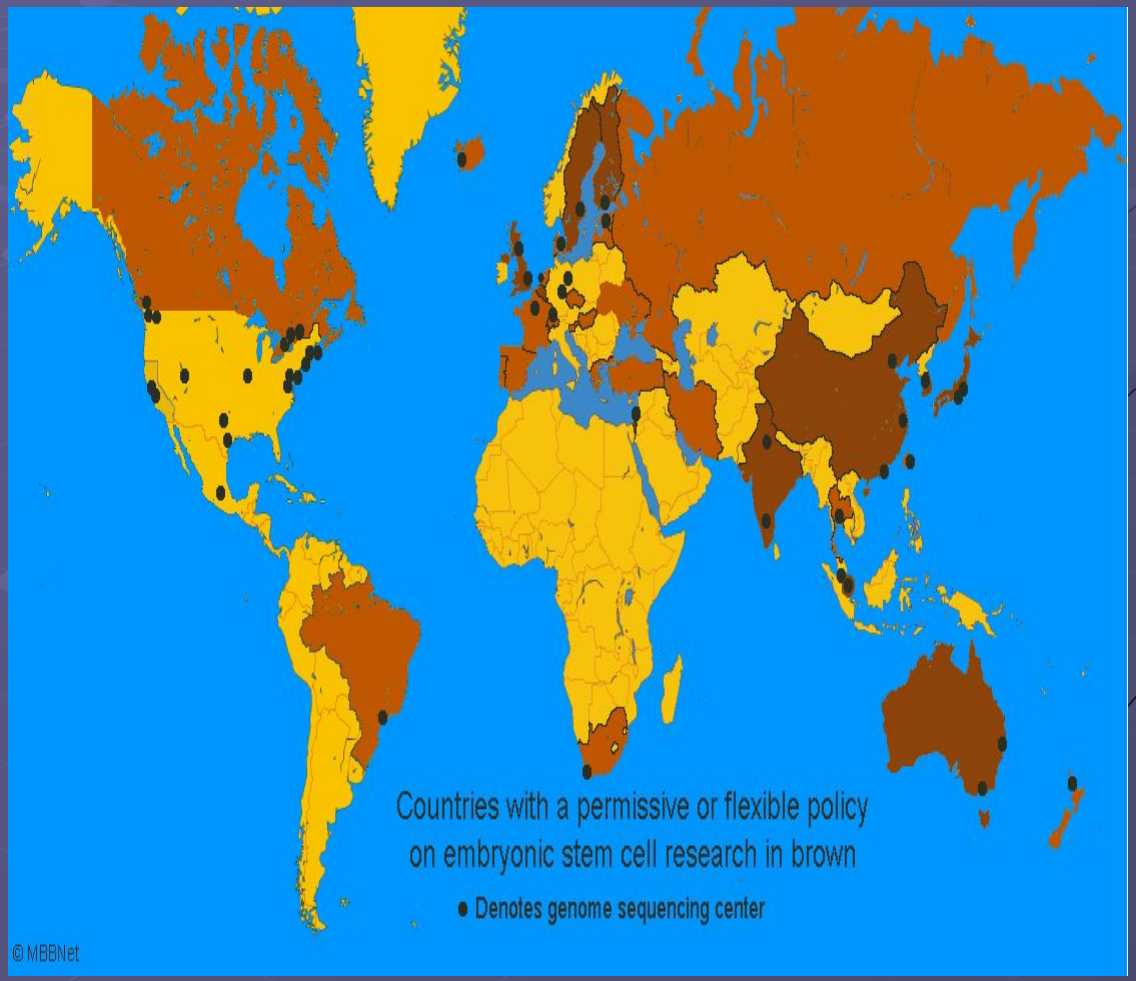
  nervous system, including a stroke, traumas of spine and cerebrum, heart attack of myocardium.
- Stem cells can provide dopamine- a chemical lacking in victims of Parkinson's disease, renew blood and bones after chemotraphy, and grow skin from a patient's plucked hair.

Diseases at which stem cells ineffective

- Diabetes of 1 type
- Cancer, oncology
- Cataract
- Glaucoma
- Menopause

Stem cell research in different countries:

- Countries colored in brown represent about 3.5 billion people, more than half the world's population. All have a permissive or flexible policy on human embryonic stem cell research and all have banned human reproductive cloning.



Interesting experiment

- For mice artificial appearance was cause a stroke, whereupon entered them own cells in a spinal channel. In 100% cases mice had partial renewal of motive activity of extremities.

Advances in Stem Cell Research

- Mice testing have led scientists to develop an alternative way of extracting embryonic stem cells without destroying the embryo.
  - Initially human embryonic stem cells would be extracted from the embryo in a stage called “blastocyst” where inner cell mass would be removed and the embryo would be destroyed.
  - But recently scientists used mice to derive embryonic stem cells, the fertilized mouse egg divides three times into eight cells before entering “blastocyst” stage, one of these cells can be extracted and cultivated in a medium (glassware) forming embryonic cells.

Advances in Stem Cell Research

- Stem Cells extracted from human bone marrow and then transplanted to diabetic mice has helped mice produce insulin in their pancreas thus curing them of diabetic problems.
- Mice were also tested to cure blindness, many scientists used stem cells extracted during the embryonic or adult process and matured them to become precursor cells these particular cells helped cure blindness in mice.

References

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