Stem Cell Therapy

Stem cell - an undifferentiated cell of a multicellular organism that is capable of giving rise to more cells of the same type which can then be transformed into specialized cells.

The Process

Step 1
Collect stem cells from embryo or specific locations in adult

Step 2
Cultivate cells in vitro

Step 3
Harvest stem cells and program to perform specialized task

Step 4
Transplant specialized cells into patient

Ethical Concerns

When does life begin?

Is destruction of a single embryo justified for the sake of benefitting others?

Is the embryo actually destroyed since cells are sustained for indefinite growth?

How should stem cell research be regulated?

Pros
- Help ameliorate diseases
- Cancer research
- Preventative Medicine
- Regrowth of organs

Cons
- Results of harvesting the cells
- Similar to reproductive cloning
- Embryonic stem cells may be rejected by the body
- Process presents ethical controversy

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References