Stem Cell Terminology

Human Gamete = mature eggs (female) or sperm (male) cells

Embryo= fertilized egg; considered embryonic until about 8 weeks; after this time, it is referred to as a fetus

Oocyte = egg (unfertilized)

Stem Cells = cells with the ability to divide for indefinite periods in culture to give rise to specialized cells

> **Embryonic stem cells** = primitive (undifferentiated) cells derived from an embryo that are capable of developing into all cells of the adult body
>
> **Somatic (adult) stem cells** = an undifferentiated cell found in many organs and differentiated tissues with a limited capacity for self renewal and differentiation

Human Embryonic Stem Cell lines (hESC lines) are cultures of cells derived from the tissue of the inner cell mass of a blastocyst (preimplantation embryo of about 150 cells)

SCNT – Stem Cell Nuclear Transfer: a technique in which the nucleus of a somatic cell is transferred into an egg that has had its original nucleus removed

Genetic manipulation = changing the genetic information of a cell; for example, causing the cell to express certain parts of its genetic material or inserting genetic material into a cell

Autologous = derived from the person on whom they are used; self-donation (for example, stem cells, blood, bone marrow)

Definitions above provided by NIH website on Stem Cell Research:
http://stemcells.nih.gov/info/basics/defaultpage.asp

Or CIRM:

http://www.cirm.ca.gov/StemCellBasics_Definitions