VII. Stem Cells

Scientists are looking to stem cells for new ways to repair damaged and diseased organs, ultimately improving the length and quality of human lives.

Possible topics include: Allotransplantation (taking healthy cells or tissues from an individual, reprogramming their function and then transplanting them back into a diseased region of the same individual); Bioprinting Synthetic Organs; Human-Animal Chimeric Cells; Reproductive Cloning; Stem Cell Research/Therapy; Tissue Scaffold Materials; Xenotransplantation (transplanting cells or tissues from one organism to another); etc...

Below, we have provided a few reputable resources to get your project started. Please do not plagiarize from these sources, but put the information in your own words. As you write the text for each section of your poster, indicate the references used in that section by using an "in text" citation (see the contest directions for more information on using references correctly). In addition to the resources provided, we encourage all contestants to seek out other scientifically reliable sources of information, media images, and artistic elements in building the Biotech Expo poster entries.

Online Resources on Stem Cells & Tissue Engineering:

California Biomedical Research Association Fact Sheets http://ca-biomed.org/mediakit.php

California Healthcare Institute (CHI) http://chi.org/index.aspx

California Institute for Regenerative Medicine***
http://www.cirm.ca.gov/

Foundation for Biomedical Research http://www.fbresearch.org/

Howard Hughes Medical Institute Online Stem Cells Resources http://www.hhmi.org/resources/science now/stem cells2.html

International Society for Stem Cell Research http://www.isscr.org/glossary/

National Association of Biology Teachers—Ethics Resources http://www.nabt.org/sites/S1/index.php?p=207

National Institutes of Health—Stem Cell Information*** http://stemcells.nih.gov/info/basics/

Nova: Science Now—Stem Cells Breakthrough http://www.pbs.org/wgbh/nova/sciencenow/0305/03.html

Science Daily

http://www.sciencedaily.com/news/plants_animals/biotechnology/

Stanford School of Medicine—Institute of Stem Cell Biology & Regenerative Medicine

http://stemcell.stanford.edu/

Stem Cell Resources: The Science of Education http://www.stemcellresources.org/

UC Davis Institute for Regenerative Cures http://www.ucdmc.ucdavis.edu/stemcellresearch/

UC Davis Office of Research—Stem Cell Quick Guide http://www.research.ucdavis.edu/home.cfm?id=SCR,9,1366

Note: Opinions and philosophies expressed on the above websites are not necessarily those of our program and should be viewed as part of the larger societal discussion surrounding biotechnology. Use of these specific online resources is not required.

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