STEM CELLS – Additional Resources

Stem Cells 101

**Learn Genetics - Stem Cells** See: The Nature of Stem Cells (Accessed May 26, 2011)
Stem cells play many important roles in our bodies from embryonic development through adulthood. This animated Power Point presentation with voice over describes the three germ layers and helps in understanding the process of differentiation during embryonic development.

**Riken Centre for Developmental Biology – Learning Centre – Stem Cells:** Building and maintaining the body (accessed May 26, 2011)
This four-part video provides high quality animations and information about stem cell basics.
  - Segment 1: Characteristics of Stem Cells – Provides a definition of stem cells and their properties
  - Segment 2: Pluripotent Stem Cell in the Early Embryo – Describes certain genes that play a role in early embryonic development
  - Segment 3: Stem cells in the Adult Body – Provides an explanation of bone marrow transplants and good description and examples of adult or tissue resident stem cells
  - Segment 4: Stem Cells in Culture – Describes how embryonic cells are generated in culture and stem cell differentiation

**Learn Genetics - Stem Cells** See: Go, Go Stem Cells (Accessed May 26, 2011)
This easy-to-understand interactive lets you send activating signals to tissue resident stem cells to see how they differentiate to become specialized cells.

**Gladstone Science: Stem Cell Myths, Truths & Possibilities** (Accessed May 26, 2011)
This 9:10 min video reinforces the stem cell biology outlined in the Stem Cells 101 videos. It includes some interesting views of early embryonic cell divisions and the blastocyst. The ideal uses of stem cells for regenerative medicine are outlined by Dr. Deepak Srivastava.

Regenerative Medicine

**California Institute for Regenerative Medicine: About Stem Cells** (Accessed June 26, 2011)
This webpage of the California Institute for Regenerative Medicine offers much information about stem cells and their medical therapy applications, including stem cell basics, videos, disease information, etc.

**McEwan Centre for Regenerative Medicine - Interactive lab tour** (Accessed June 26, 2011)
This webpage offers an interactive tour of the regenerative medicine labs of the McEwan Centre for regenerative medicine.

Cord Blood and Cord Blood Banking

This Canadian website provides information to expecting parents, physicians, researchers and others who are interested to learn more about cord blood stem cells and its applications.
STEM CELLS – Additional Resources

Stem Cell Donations and Transplants

Canadian Blood Services: Learn about stem cell donation (Accessed August 3, 2011)
This Canadian Blood Services webpage provides basic background information on stem cell donation methods and procedures, donor matching and transplants.

Resource Collections

This website has more than 40 resources about stem cell research and regenerative medicine, fully catalogued. It includes educational, interactive and multimedia tools, ideal for teachers, science centres and museums, scientists doing outreach and others.

Stem Cell School (Accessed August 3, 2011)
This website designed for high school and undergraduate level life-science educators offers a variety of stem cell content and multimedia content. The site has some video clips and images of stems cells and an image glossary to help students visualize cellular components and processes.