Stem Cells
in the Spotlight

Log on to: http://gslc.genetics.utah.edu/units/stemcells and explore this module to find the answers to the questions below.

1. What is a stem cell?

2. What does it mean to differentiate?

3. A stem cell differentiates by making new _____.
Lipids Carbohydrates Proteins

4. Drag Stem Cell Guy into the Differentiation Booth and dial #5 for Skeletal Muscle Cell. What is the scientific name of the cell type Stem Cell Guy will become?

5. Return to the Differentiation Booth and choose another type of cell. Create a quiz question from the information given. Write the cell type you chose, the question, and its answer below.

6. Fill out the table below

	Definition	Example cell type
Totipotent		
Pleuripotent		
Multipotent		

7. What is the primary goal of stem cell research?

8. Examine the steps in “What is the Recipe for Success?”
What type of cells were researchers hoping to replace in patients with Parkinson’s disease?

What type of cells did researchers use and what made them a good choice?

Why is tissue typing necessary in stem cell therapies?

How did surgeons deliver the stem cells to Parkinson's patients?

9. What types of stem cell therapies are in use today?

10. How might therapeutic cloning aid stem cell therapies in the future?

11. What are some potential sources of embryonic stem cells for use in research and stem cell treatments?

This worksheet is taken from the University of Utah's Genetic Science Learning Center website at http://gslc.genetics.utah.edu