

7.72 Study Questions: Stem Cells

11.13.06

1. What biological question is addressed in the Blanpain et al paper?

2. What is the “textbook” definition of a stem cell?

Please comment on this definition, and its generality. Can you think of a better one?

3. What is a stem cell “niche”?

How does this relate to the concept of embryonic induction?

4. What are “LRCs”? What is the significance of identifying LRCs?

How were these classically identified (that is, in past assays)?

In this paper, what was the principle behind using the H2B-GFP transgene to identify LRCs?

5. What conclusions were drawn? Did you have any issue with these conclusions? Why?

6. Suggest a next experiment. Continue on the back of this sheet if you need to.