

Name: _____ Dr. Reichler's Bio 325 TTh 7:30-9pm Fall 2007 Quiz 10/11

- 1) What model of mRNA localization would fit for the localization of mRNA for a protein that is secreted?
- 2) What are two bits of information that can be coded for in the 3' UTR of an mRNA?
- 3) How could a miRNA lead to decreased mRNA levels?
- 4) What mechanism might explain the presence of plentiful mRNA but little protein being present?
- 5) How could looking at the sequence of a gene tell you where the protein was located? How could where in the gene you found this information tell you about where the protein might be located?
- 6) What is the connection between fetuses who are exposed to poor nutrition and smoking?
- 7) What is different about the genes of a totipotent cell versus a pluripotent cell?
- 8) What evidence suggests that DNA packaging is different between animal and plant cells?
- 9) What is the function of many of the hox proteins?
- 10) If you were studying the SRY gene, coded on the Y chromosome. Could you tell when SRY begins to be expressed using a reporter gene? Would a reporter gene allow you to determine the stability of SRY protein?
- 11) Which genes are likely to be expressed first, pair-rule genes or hox genes?