

Assignment 3 (due May 12th, 2005):

The paper by Ibrahim *et al.* addresses the mechanisms employed to ensure proper pairing of 5' and 3' splice sites. The authors make two distinct conclusions: (1) that SR proteins, by binding to unspliced exons, direct the splicing machinery to the nearest 5' and 3' splice sites; (2) the SR proteins function to suppress splicing between upstream 5' splice sites and downstream 3' splice sites. Summarize the evidence that specifically supports the second of these conclusions

In pre-mRNAs that carry several alternative exons (for example a gene with 4 exons, but 3 alternative versions of exon 2 that are used in different tissues) splice site choice has extra complexities. Based on the conclusions of this paper, propose a model for how alternative splicing in the different tissues could be achieved. You may include a figure if you wish, in addition to the 2 pages of written text.

Directions:

The answers to the questions should be in the form of a **2 PAGE ESSAY, DOUBLE SPACED, USING #12 FONT SIZE with one inch margins on top, bottom, left, and right. All papers should be left justified. No excuses!**

The essay should synopsise the important points of the paper that pertain to the question (no more than two paragraphs) and propose an answer to the questions posed. The quality of the answer will depend on the **quality of the supporting arguments** as well as the **quality of the presentation**.

Criteria for evaluation:

1. The student introduced the paper's topic effectively through a concise and clear summary of the key conclusions that can be made based on the experiments presented in the reading assignment.
2. The paper demonstrated a clear understanding of the experiments presented in the reading assignment.
3. The paper presented an insightful perspective to the study question(s). Answers were well supported with logical arguments based on the data in the paper.
4. The study question(s) were answered in the space allowed.
5. The paper:
 - a. was well organized with informative topic sentences, effective transitions, and clear expression of ideas;
 - b. had a logical flow; and
 - c. demonstrated correct grammar and mechanics.
6. The title of the essay concisely synopsized the topics covered and drew the reader's interest.