Poster Presentations: Biochemistry 465, Spring 2006

Each group of 5 or 6 students will prepare a poster on a topic of current interest in nucleic acid biochemistry or on medical/economic/ethical aspects of nucleic acid biochemistry. Each group must treat a different topic. The posters will be presented at a poster session on May 4, 5, or 6 according to class schedules.

If you have a group of people who would like to work together, please let me know by Friday, March 31. If your group would like to work on one of the topics below, let me know that as well. If you have not joined a group but are particularly interested in one of the topics, let me know that too. I will assign everyone to groups over the weekend, and assign topics as far as possible. You will then have about two weeks to get together, choose a topic if necessary, and do some preliminary research. I would like a one-page summary of your intended poster by Thursday, April 13.

Posters will be printed through the Engineering copy center:
http://www.eng.umd.edu/copycenter/posters.htm
Details on size, format, layout, and so forth will follow.

Your grade will depend on the clarity, impact, accuracy, and comprehensiveness of the poster itself (60 pts), the depth and clarity of your verbal explanations of the poster (20 pts), and the paragraph of comments each of you will provide on everyone else's poster (20 pts).

Possible topics: Topics chosen from the list below can be taken in many directions.

1. Single-molecule biochemistry of RNA polymerase
2. Medical and ethical implications of inexpensive genome sequencing
3. The economics of microarrays and/or other large-scale screening technologies
4. The chemistry of chromatin modifications, and evidence for (and/or against) the histone code hypothesis
5. Bleeding-edge DNA sequencing technologies
6. RNA tertiary structure motifs and prediction
7. The biochemistry and biostatistics of DNA-based forensics
8. The emergence and applications of RNAi
9. Lesion bypass by DNA polymerases
10. Using 16S RNA to explore phylogeny and nonculturable bacteria
11. Methods and bioethics of prenatal genetic testing
12. The evolution of EM, neutron diffraction, crystallographic, and cryo-EM studies of the ribosome and the mechanism of translation
13. The interplay among cancer, chemotherapy, and DNA repair
14. Your favorite topic (YFT), to be previously approved by me