

BMB 407/507 (2007) Term Paper Assignment (20% of final grade)

Your topic/protein is: _____.

Paper style: All papers should be formatted in the style of a scientific review paper (see example given as handout and also on the courses.miami.edu web site). You should discuss the properties of the protein; its sequence, domain and 3D structure, biological function, evolutionary aspects and close homologs, catalytic mechanism (or DNA/RNA binding mechanism, if appropriate), etc. The paper should emphasize the structural aspects of the protein. You are expected to make extensive use of primary scientific literature (for example, from Pubmed or the library) as well as web resources such as structure and sequence databases (PDB, Swiss-Prot, etc.). Materials taken directly from a general google search or wikipedia are *not* acceptable.

Length Guidelines: The text of the paper (double spaced typed text) should be approximately 8 pages (BMB407 with no writing credit) or 15 pages (BMB507 or BMB407 with writing credit). Do not include the references, figures or tables in this page count.

Formatting: You should prepare your paper using a word processor with double spaced text, with a full bibliography at the end in the same style as *Molecular Cell* (with author list, year of publication, title, journal, volume and page numbers). All materials that you use in your paper should be properly referenced. This includes actual materials (sequences, structures, figures, etc.) as well as ideas and hypotheses from the scientific literature. Figures and figure legends should appear at the end of your paper, and should be properly numbered.

You need to prepare your paper in both paper and electronic form (preferably as a single pdf file or word document).

At least two of the figures should be original (made by you) – these can include cartoons showing protein domains or discussing mechanisms; sequence alignments; 3D structures of proteins, etc. Indicate how the data for the figure was obtained (for example, Genbank or Swiss-Prot accession numbers for protein sequences, or the PDB ID for structures), and the software used to make the figure (for example, rasmol, pymol, etc.).

Draft/Outline: You are strongly urged to assemble a 1-2 page outline/draft of your paper (list of topics and issues discussed; list of figures; main references used) by the end of spring break (**March 20th**). This should be emailed to malhotra@miami.edu

Due Date: Your papers are due on **April 19**. You need to give the paper copy in class, and email the electronic form (in pdf or word format) to malhotra@miami.edu

Writing Credit: Please indicate on the cover page if you wish to get writing credit for you paper. Grading for writing credit will place extra emphasis on the paper organization and grammar.