BC943 Seminar in Biochemistry
Wednesday 12:00 pm (Section 1)
Thursday 12:00 pm (Section 2)
MRB 111
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Course Objectives

- Develop your ability to determine the value and relevance of the original literature in biochemistry. This will be accomplished by in-depth exploration and oral presentation of a recent scientific paper.

- Practice in preparing and presenting an oral presentation. This is an essential skill for a successful career in biochemistry and is also required in the majority of careers. You will often be judged on the basis of your ability to speak to a group.

- Prepare the groundwork for your Senior Thesis

Class Schedule

August 28 First day of class – Introduction to the course

September 4 Deconstruction of a research paper
Presentation schedule distributed

September 11 How to give an effective presentation

September 18 Meetings with instructor to discuss topic

September 25-December 4 Class presentations (2 presentations per session)

Grading

1. Presentation topic (10%). (due September 15, to instructor by email) The topic for your presentation should be on papers related to your thesis topic. You will need to have the reference to at least one paper to hand-in with your topic.

2. Abstract of presentation (15%). Due 8 days BEFORE your presentation (by e-mail to instructor). One page, with title, 1 ½ spacing, 12 pt Times Roman font, plus a list of literature cited on separate page. See sample abstract attached to this packet.
3. **Presentation (50%)**. Should be based on a research paper from the primary literature (not review articles), with supporting papers (including review articles) to introduce and give perspective to the topic. Each presentation will be 18-20 minutes with 5 minutes for questions.

- **Content of the presentation**
  - Understanding of the topic
  - Appropriate introduction and background
  - Discussion of methods and results
  - Conclusions

- **Quality of the presentation**
  - Delivery
  - Audience contact
  - Handling of questions
  - Visual aids
  - **LENGTH** (if your contribution is significantly shorter than 18 minutes, points will be deducted).

4. **Presentation evaluation (10%)**. Each student will evaluate each presentation using the evaluation forms. Your name and the speaker’s name must be at the top of each form.

5. **Participation in discussion (15%)**. We expect each student to participate in a lively discussion.

**Grading:**

Traditional letter grades (A to F) will be assigned. The individual class assignments will constitute the percentage of your grade as indicated above. Abstracts will be graded for *spelling and grammar*, as well as content, organization, and proper references. **Attendance for all lectures is mandatory.** After the first unexcused absence, a student's final grade will be reduced by one grade for every additional unexcused absence.

**Course Methods in Outline**

- The easiest way to get into a new topic is by reading a well-written mini-review or review article first. There are also several ‘special issues’ of Science or Nature devoted to a particular topic. You will select a recent biochemistry or molecular biology review in an area of special interest to you. From the review, one or two original papers will be chosen. These paper(s), in combination with the review(s), will provide the basis for the talk.

- Pay attention to the length of the original articles. Some very short ‘letters’ or contributions may not provide enough ‘fodder’. A good way to check for this is to look at the number of figures (more than 4, multi-panel).

- We will focus on a particular topic to allow for a coherent seminar series; please present work that use molecular biology / biochemistry approaches; stay away from clinical research.

- Please make an appointment with your instructor BEFORE YOUR TALK to discuss your chosen topic and specific papers.

- You will prepare and present a talk on the selected topic (**18-20 min in length, with 5 minutes discussion / Q and A**), and answer questions in the discussion session.
On days that you are not giving your seminar, you will be required to fill out the evaluation forms given below to provide constructive criticism for the speaker (anonymous).

Choosing a Research Paper

Select a topic of interest to you:

- Read (mini)-reviews or ‘dispatches’
  Excellent journals with mini-reviews: Cell; Journal of Biological Chemistry; the Current Opinion journals; Trends in Biochemistry; Trends in Cell Biology; Trends in Biology; Trends in Genetics; Science; Nature; Current Biology. These usually are written to discuss a paper that appears in the same issue. Stay away from opinion – pieces and political / philosophical debates
  Find reviews using Medline (Biochem. and Biotech Club reading room) http://www.ncbi.nlm.nih.gov/Entrez/

- You must send the instructor, by email or in person, the reference for the paper(s) and review. **Note that only original research papers that contain original research findings can be chosen; these must be from peer-reviewed journals and should not be older than four years.**

Abstract:

You must write an abstract that contains the following:

- a description of the general research problem
- why the research is important
- results of the research paper and methods
- a short conclusion
- list the reference for the main paper(s) that you are discussing.

***THE ABSTRACT FOR YOUR TALK IS NOT THE ABSTRACT OF THE PAPER!***

The abstract should be tailored towards the readership (easy to understand without background information). It has to be in your own words. Use a short, general title not from the minireview or paper. You should reference the minireview and paper(s), in the following format

Authors (Year). Title. Journal volume: pages. For example:


*The abstract must be emailed to your instructor at least 8 days prior to your presentation. The instructor will email copies to your classmates so that everyone is prepared for the presentation.*