

2020 BC464 Molecular Genetics – Recitation

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Virtual Meeting time: TBD on Teams

Student Learning Outcomes:

- Understand primary research literature in its scientific context
- Critically evaluate molecular biology experiments and their interpretation
- Communicate effectively with other scientists

DATE	RECITATION TOPIC	LOCATION
W 8/26	Introduction	Teams online
W 9/2	Submit your favorite Nobel-prize winning topic	Work on your own
W 9/9	Submit 2 primary literature paper	Work on your own
W 9/16	Paper Discussion 1: prepare outline	Work on your own
W 9/23	Paper Discussion 1: online	Teams online
W 9/30	Paper Discussion 2: prepare outline	Work on your own
W 10/7	Paper Discussion 2: online	Teams online
W 10/14	Paper Discussion 3: prepare outline	Work on your own
W 10/21	Paper Discussion 3: online	Teams online
W 10/28	Paper Discussion 4: prepare outline	Work on your own
W 11/4	Paper Discussion 4: online	Teams online
W 11/11	Prepare oral presentation outline	Work on your own
W 11/18	Prepare oral presentation	Work on your own
11/23-27	FALL BREAK	
W 12/2	Oral presentations	Teams online
W 12/9	Oral presentations	Teams online

Select a topic

Each student will select a topic that will be presented towards the end of the semester. The presentation should focus on significant discoveries from a past Nobel prize winner (in Chemistry or Medicine). The topic should be relevant to Molecular Genetics in general and will be vetted after submission. You will first develop an outline of presentation, covering how the discovery was made, why it was Nobel-worthy, and what the remaining significant questions are. During this preparation, you should have encountered primary literature that you'd like to discuss in depth. Each student will choose one primary literature paper for discussion later.

At the end of the semester, each student will give a 15-20 min presentation on the topic you chose. In your presentation, you are encouraged to outline milestones in the course of

discovery, use schematics to depict important concepts, and use original figures to illustrate important experiments. Make sure to cite your sources.

Prepare a paper outline

Students will work together to discuss 4 research articles during the semester. They will first develop a Paper Outline, due **by Sunday at noon**. In the following week, the instructor/TA will lead the discussion. During the discussion session, students will be evaluated on their participation. Afterwards, each student will submit 3 quiz questions (with answers indicated) on Canvas **by Sunday at noon**.

Please use these major headings in your outline:

A. Authors of paper:

Title of paper:

B. Main Problem/Question of the paper

C. Main Conclusion

D. Background

E. Importance/implications

F. Experimental Approaches

Method 1 Protocol

Method 1 Findings

Method 2 Protocol

Method 2 Findings

Method 3 Protocol

Method 3 Findings

G. Next Experiments

Grading: Traditional letter grades will be assigned. The individual class assignments will constitute the following proportion of your final grade:

20 class participation

40 paper outline

10 quiz questions

30 final oral presentation

100 total points

Important note: All written assignments will be graded for spelling and grammar, as well as content and organization.