## **BBCB699** Lab Rotation

Course Director: George Burslem, Ph.D. George.Burslem@pennmedicine.upenn.edu

The purpose of the Lab Rotation is to provide the student with the opportunity to experience different laboratory environments and different experimental approaches and in so doing, assist him or her in choosing a laboratory for thesis work

A student is required to do a rotation in three different laboratories. The rotations should be with a member of the Graduate Group; the Chair of the Graduate Group must approve any rotations in a laboratory outside of the Graduate Group. The Chair of the Graduate Group must also approve in writing any exemptions from the three required lab rotations.

In general, all rotations are to be completed by the end of the first year, enabling the student to select a research lab by the beginning of the second year.

	Rotation Start	Form Due	Rotation Ends	Abstract Due	Rotation Talks
Rotation 1	Sept	Sept 20	Nov/Dec	Dec 1	Early-Mid Dec
Rotation 2	Dec/Jan	Jan 15	March/April	April 1	Mid-April
Rotation 3	March/April	April 15	June	June 15	Late June
Rotation 4*	June/July	June 30	Aug	Aug 15	Early Sept

<sup>\*</sup>If necessary. A student doing a 4th rotation can choose to present on either Rotation 3 or Rotation 4.

While there is flexibility in the start and end times of individual rotations, each rotation should be a minimum of 10 weeks in duration and students should be actively in a rotation lab throughout their first year. The exceptions to this timing are pre-matriculation rotations (summer before first year) which should last for 12 weeks. Additionally, third and fourth rotations can be as short at 8 weeks given that increased amount of time in lab when the rotation is not concurrent with classes.

An incoming student may take Rotation 1 in the summer prior to the Fall semester (Summer matriculation). The date for the start of the summer semester is different every year, but is usually the first or second week of June. This rotation would end at the end of August, with the abstract due August 15th, and the presentation in early September.

Students should begin to search for a Faculty Supervisor about one month before the beginning of the proposed rotation. An appointment to discuss possible projects should be arranged with the potential Faculty Supervisors. Students are encouraged to talk with several potential supervisors, to seek advice from the Course Director or other appropriate BMB faculty. Students should come to their course advising meeting with a list of several potential labs and provide the advising committee with a rationale for their selections if asked.

The rotation is under the supervision and guidance of the Faculty Supervisor. At the beginning of a lab rotation, the Faculty Supervisor and student are encouraged to discuss and clearly define the goals of the project. After selection of a lab, the Lab Rotation Approval Form, available on the BMB website under the resources → forms tabs, must be filled out and required signatures obtained. Signed form should be returned to the BMB coordinator for placement in the student's file.

The Course Director should be notified in case of difficulties or shortcomings that may jeopardize the expeditious and satisfactory progression of the proposal. Upon completion of the rotation, the Faculty Supervisor will submit a grade and a written evaluation of the student's performance for inclusion in the student's file. Students should have an 'exit interview' meeting with their Faculty Supervisor, in which the student will be provided feedback. The student will also be asked to provide a confidential evaluation of the lab rotation experience

For talks and poster presentations, one week prior to the presentations (see below), a 150-word abstract should be submitted to the Course Director and to the Academic Office. The abstract should describe the issue/question motivating the study, the approaches taken to address the issue/ question, and a synopsis of key findings, conclusions and future directions. Failure to submit the abstract in a timely manner will affect the rotation grade. Please also give your abstract a title (which does not count toward the word limit). End of the semester (fall, spring and summer) lab rotation presentation requirements will be in one of the following formats:

**Lab Rotation Talk**. Short presentation (10 min talk, 3-5 min questions) on your work to Graduate Group faculty and students. The emphasis is not on the quality/quantity of the data acquired, but on (a) learning to give a talk (communicating) and (b) demonstrating how one has thought about one's research project, including the overall aims, thrust and importance of the project. The main purpose of the talk is to give the students an opportunity to present a prepared/practiced short talk in a relatively informal setting, and to provide them with helpful feedback about scientific content and presentation skills.

**Poster Presentations**. You will present your work in the form of a poster presented at a Friday Research Discussion (a weekly informal seminar series sponsored by the Department of Biochemistry and Biophysics) to which Graduate Group faculty and students are invited. Easels and 40 x 60 white boards will be provided. Posters do not have to be printed, but can be individual sheets of paper pinned to the poster board.

**Written Rotation Summary**. The summary of your lab rotation should be one full page in length (Arial, 11 pt font, with 0.5 inch margins all around - standard NIH style), and should cover Background, Experimental Design, Results (can be combined with Experimental Design), and Future Directions. References can go on a separate page and are not part of length. You can have up to two figures on a separate page if needed.

The talks, poster presentations, and written summaries are requirements for completion of the course. Anyone who fails to complete these requirements will obtain an incomplete for the course. The requirement must be completed by the end of the following semester. Attendance at the Lab Rotation Talks and the Poster Presentations is required. Unexcused absence from all or part of these sessions will result in reduction of the grade submitted by the Faculty Supervisor by one half grade. The Faculty Supervisor may also require a student to prepare a short report or paper at the completion of the rotation.

After completing the three rotations, students should be able to make an informed choice as to a Thesis Advisor. If a student is not able to find a suitable lab after three rotations, he or she should without delay contact the Course Director to arrange for an additional rotation or independent study to find a Thesis Advisor.