

## Neuroscience Journal Club (Fall 2019)

**Faculty Co-Directors:** Sandra Maday, Ph.D ([smaday@pennmedicine.upenn.edu](mailto:smaday@pennmedicine.upenn.edu))  
Gregory Corder, Ph.D. ([gregory.corder@pennmedicine.upenn.edu](mailto:gregory.corder@pennmedicine.upenn.edu))

**Time / Location:** Monday, 3:00 – 4:30 pm, Barchi Library (Journal Club)  
Wednesday, 12 – 1 pm, Barchi Library (Lunch with MINS speaker)  
Wednesday, 4 – 5 pm, Barchi Library (MINS seminar)  
MINS Seminar speakers, faculty mentors and Journal Club papers available at <http://www.med.upenn.edu/ngg/JournalClubPapers.shtml>

### **Course Description and Details**

The goals of this weekly course are: (1) to learn how to read and critique research papers; (2) to learn how to present a polished, professional summary of a recent paper; (3) to practice writing a Specific Aims page proposing novel research (second semester); and (4) to acquire some background information and context to more fully appreciate research seminars in the MINS Seminar Series.

Each Monday session will consist of two 25-minute presentations of a research paper related to that week's Wednesday seminar. Each presentation will be followed by a student-led discussion (~15 minutes). Each Wednesday session consists of attending the one-hour formal MINS seminar by faculty invited from other institutions to speak about their work, published and unpublished. Attendance at both the Monday and Wednesday sessions is required.

Papers are posted on the web at the Neuroscience Journal Club site (see website listed above). Each student who is not presenting is required to read and be prepared to discuss each of the two papers assigned weekly.

Two research papers will be presented during each Monday session (referred to as "Paper 1" and "Paper 2"). Sometimes an optional third paper is provided for context. Students will sign up for presentations and lunch with the seminar speakers at the first Journal Club session. A faculty mentor will help presenters read and understand the assigned papers and prepare presentation slides. Presenters should meet with their mentors at least twice to discuss the papers and polish their presentations. The schedule of Journal Club presenters will be posted on the Neuroscience Journal Club website. See additional guidelines for non-presenters and presenters below.

### **Guidelines for Monday Journal Club meetings**

#### **Presenters:**

- 1) PRESENTATION 1: Will be a thorough presentation of "Paper 1," including relevant background (encompassing the broader research area as well as the particular paper), objectives, approach and methodological details, results/figures, and conclusions. Students should also critique the adequacy of results that support the conclusions, the general strengths/weaknesses of the paper as well as provide future directions.
- 2) PRESENTATION 2: Will be a presentation of "Paper 2". This will include relevant background, objectives, slides of individual figures, overall conclusions, strengths/weaknesses of the study, and future directions. Course directors will call on other members of the class to explain each figure (see description below).
- 3) NOTES: Each presenter should plan a 25-minute presentation (with a portion of Presentation 2 time being dedicated to other class members presenting the figures). Presenter 1 and 2 should coordinate their presentations to make sure the appropriate background is presented without redundancy (in general, Presentation 1 background will be more comprehensive).

- 4) MENTOR: Please meet with your faculty mentor no later than one week prior to your Journal Club presentation, and consult your mentor as necessary about the papers and your presentation. Faculty members are very busy – so schedule your meetings with the faculty mentors AT LEAST 2 WEEKS IN ADVANCE. You should meet with your mentor at least once to discuss your respective paper assignment and at least once to prepare your presentation. Your mentor should also listen to a formal run-through of your presentation when both presenters are ready. Remember to schedule sessions with your mentor well in advance!!
- 5) FEEDBACK: Each presenter will receive comments about their presentations from the faculty mentor and either course director.
- 6) ALTERNATIVE PAPERS: In rare cases, the students presenting and their faculty mentor may decide to change one or both of the papers to be presented and read by the class. In this case, you should notify all students and faculty no later than the preceding Monday, and send the course directors a PDF of the paper(s).

### **Non-presenters:**

We ask that you spend a minimum of 1 hour reading each of the assigned papers prior to class.

- 1) PAPER 1: Prepare 4 very brief paragraphs (each with a maximum of four sentences) answering the following questions:
  - (a) What was the main take-home message of the paper?
  - (b) What part did you like best?
  - (c) What part did you find the least convincing or the most confusing? and
  - (d) After reading the paper, what one question would you ask the author?

Your document should not exceed one page (must be typed, not handwritten). These assignments will be collected at the start of the Journal Club, and, when appropriate, will be used as a basis for discussion. If the student-lead discussion wanes at any point, the course directors will select a few answers and have the authors explain them to the class.

- 2) PAPER 2: No written assessment is required, but we will call upon individual students in the class to explain each of the figures in the paper (1 non-presenting student per figure). Your explanation should concisely address the objectives/motivation, methods/techniques, results, conclusions, and whether the data shown supports the conclusion for each individual figure.

### **Wednesday sessions**

Everyone is encouraged to ask questions of the seminar speaker. These can be issues that were raised at the Journal Club, at lunch with the speaker, or in the seminar itself. After the seminar, you should discuss the content and format with each other, and we will generally discuss the seminar in the first few minutes of the following Journal Club.

In addition, there is the opportunity to have lunch with seminar speakers, from 12 -1 pm on Wednesday. These meetings are a chance to get to know the speaker, learn about their background, and get some insight into the way they approach their science. Each student must sign up for at least FOUR lunch meetings with the seminar speaker per semester. A minimum of 4 students should be in attendance at each lunch.

### **Evaluations**

Students will receive oral and/or written feedback on their journal club presentation from the faculty mentor and/or journal club faculty. In addition, the students will receive a grade at the end of the class, which is evaluated based on a student's presentations (40%), participation in the student-led discussions (40%), and weekly written assignments (20%). A satisfactory evaluation for a total of two semesters is needed to complete this NGG requirement.