COMBINED JUNIOR THESIS PROPOSAL & NEURO 91 REPORT

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY

**NOTE: FOLLOW THESE INSTRUCTIONS IF YOU ARE ENROLLED IN NEURO 91 & ARE CONSIDERING WRITING A THESIS **

This report serves as both the junior thesis proposal AND the Neuro 91 final written assignment for students in their sixth semester (typically junior spring). Please email your thesis proposal/final report (described below) to James Poolner (jp@mcb.harvard.edu) by 11:59 PM on Saturday, December 9th, 2023 (March 2025 grads) or Tuesday, April 30th, 2024 (May 2025 grads). You must also submit a copy of your report to your lab director.

The Head Tutor and the Concentration Advisor will review your proposal, and you will be contacted over the summer with feedback. This report should be submitted if you are considering writing a thesis, but it does not obligate you to do so.

If you have any questions, contact Dr. Laura Magnotti (magnotti@fas.harvard.edu), Dr. Ryan Draft (draft@fas.harvard.edu), or Dr. Kristina Penikis (kpenikis@fas.harvard.edu), Neuroscience Concentration Advisors.

Thesis Proposal/Final Report Instructions: Do not exceed a total of 7-8 pages (double spaced). Include the following:

- **Title:** Please include “Junior Thesis Proposal / Neuro 91 Final Report” in your title.

- **Background & Rationale:** In approximately 3-5 pages (double spaced), introduce your broad topic and provide a background for your research project. You should read the relevant literature and provide a context for the question(s) you plan to address. Be sure to include in-text citations of all relevant published work. Begin this section by broadly introducing your topic, then focus in on any pertinent background studies (not just from your own lab but others as well), and eventually end with a statement of your specific research question(s). A reader should be able understand exactly why you are asking your question(s), based on what you describe in this background section about earlier work, current debates in the field, etc. You can think of this section as eventually being developed into your thesis introduction.

- **Experimental Approach:** In approximately 1-2 pages (double spaced), describe both the experiments you completed this semester as well as those you plan to complete in the coming year. Describe the specific methods you have used/will use and explain how they will provide mechanistic insight into how the brain works. Be sure to provide enough detail so that the reader will have a clear idea about what you plan to do in the lab. We will use this section to make sure that your project will be appropriate for a thesis in Neuroscience. Do not just describe the overall research plan of your host laboratory; rather, try to be specific about the work you plan to do. Your research director and your mentor should help you to define your specific role in the project. Also, make sure that your mentors read a draft of your proposal for suggestions and revisions.
• **References: (not included in page count)** Provide key references regarding the background and experimental design of your project. Provide complete reference information (authors, year, title, journal, volume, pages numbers, etc.).

• **Joint Concentrators:** If you are a joint concentrator, your thesis proposal must demonstrate how you will integrate both of your concentrations into an interdisciplinary thesis. This means you must show how approaches from both fields will be applied to your work and how both provide essential contributions to further your central thesis question. Your proposal will be reviewed by the Neuroscience Standing Committee (and also your joint concentration) to determine if it meets the standards for a coherent and integrated project. This checkpoint is a requirement to continue to pursue a joint concentration.

  o Joint concentrators must submit the [Joint Concentration Information Form](#) along with their junior thesis proposal.

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Email your thesis proposal to your lab director and James Poolner ([jp@mcb.harvard.edu](mailto:jp@mcb.harvard.edu))