The Memory Modulation Lab

General expectations, guidelines, and information for all lab members

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1. Introduction

Welcome to the Memory Modulation Lab manual. This manual was developed by me, Maureen Ritchey. It is intended to represent my vision for how the lab should function and to complement existing Boston College policies (which take precedence). Upon joining the lab, all lab members are required to read the lab manual and sign a form indicating that they have done so. I expect that more information will be added and some sections will be revised as the lab grows and develops. If you have any comments or suggestions regarding the contents of this manual, please tell me.

2. Lab member expectations & responsibilities

2.1 Everyone

The following applies to all full-time, part-time, and undergraduate lab members.

Big picture

- Do work that you are proud of. Do work that others will care about. If you feel as though your work does not meet these standards, let's find a solution.
- Double-check your work. Being a little obsessive is essential to good science.
- Be supportive of your labmates. We are a team.
- Work independently when you can, ask for help when you need it.
- Share your knowledge. Exchanging knowledge and skills with your peers is the core of academic research.
- Respect each others' strengths, weaknesses, differences, and beliefs.
- Science is a marathon, not a sprint. Take personal time and vacation when you need it and cultivate a life outside of the lab. Respect that other lab members also have a life outside of lab. We do not glorify workaholic behavior. There may be times that you have to work longer or harder to finish something, but this should be balanced out over time.
- Academia may feel different from other types of jobs, but it is still a job. You should treat coming into lab with the same respect that you would treat any other position.
- Communicate openly and respectfully with other members of the lab.
- If you have an issue with another lab member that cannot be solved by talking with them about it, please talk with Maureen. If you have an issue with Maureen, please reach out to another member of the psychology department who can intervene (this can be the lab manager for smaller lab issues, or another faculty member or the department chair for more serious issues).

Small picture

- Do not come into the lab if you are sick. Stay home and get healthy, and don't risk getting others sick.
- Notify the lab manager or me if you will be taking the day off from work, either due to illness or vacation. Make a note on the MemoLab calendar when you have plans to be out. If you are sick and you had experiments or meetings scheduled that day, notify your participants or collaborators and reschedule. Please also update your Slack status.
- You are not expected to work on staff holidays. If you are being paid, then you *are* expected to work during university breaks (except for staff holidays or if you're taking your paid vacation/personal time).
- Lock the doors to the lab if no one else is around, even if you're stepping out for a minute.
- Keep the lab tidy. Food messes should be cleaned up promptly, dirty dishes taken home with you, and common areas should be kept free of clutter. Items left unattended may be cleaned, reclaimed, or recycled. If you're using lab equipment, put it away when you're done.
- The dress code in academia is generally casual. My only request is that you look semi-professional when interacting with participants and when presenting your work. Jeans are fine, gym clothes and pajamas are not.
- Arrive to lab at least 15 minutes before you have any experiments scheduled, so that you will be there to greet the participants.
- When working remotely, you should be generally available over Slack during workdays (not necessarily responding immediately, but ideally within a few hours), and you should attend any scheduled remote lab meetings.

2.2 PI

All of the above, plus you can expect me to:

- Maintain a vision of where the lab is going
- Apply for and secure the funding necessary to keep the lab going
- Meet with you regularly to discuss your research projects. The definition of "regularly" may change over time or over the course of a project, but for now, I mean once a week or more often as needed.
- Work with you to develop a mentoring and research plan tailored to your interests, needs, and career goals. We will meet in August each year to sketch out a strategic plan for the academic year that will keep you on track with your goals, and we will meet in May to review progress toward these goals.
- Give you my perspective on academia and issues related to professional development
- Support your career development by introducing you to other researchers in the field, writing recommendation letters for you, providing you with opportunities to attend conferences when possible, and promoting your work in talks
- Care about you as a person and not just a scientist. I am happy to discuss with you any concerns or life circumstances that may be influencing your work, but it is entirely up to you whether and what you want to share.
- If you need extra support related to time management and productivity, I will brainstorm solutions with you and share what has worked for me and for others.

2.3 Postdocs

All of the above, plus you will be expected to:

- Develop your own independent line of research

- Mentor undergraduate and graduate students on their research projects, when asked or when appropriate
- Apply for external funding (e.g., NRSA, K99). I will hire postdocs only when there is funding available for at least a year; however, applying for external funding is a valuable experience and, if awarded, it will release those dedicated funds for other purposes.
- Apply for jobs (academic or industry) as soon as you are "ready" and/or by the beginning of your fourth year as a postdoc.
- If you are planning to pursue a non-academic career, treat your postdoctoral research as seriously as you might if you were pursuing an academic career. We can discuss ways of making sure that you are getting the training you need, while still doing excellent research.
- Remind me (the PI) that different scientific opinions can co-exist in the same lab!

2.4 Graduate students

All of the above, plus you will be expected to:

- Develop a line of dissertation research. Ideally, your dissertation research will consist of at least 3 experiments that can be packaged into one thesis document.
- Apply for external funding (e.g., NSF GRFP or NRSA). This is now required of our graduate students, but even if it wasn't, I would recommend it because it is such a valuable learning experience. If you obtain external funding, this will release you from your TA-ing responsibilities.
- Do some soul-searching as to what type of career you want to pursue, e.g., academic jobs that are research-focused or teaching-focused, non-academic jobs like data science or science writing. We can brainstorm ways of making sure you are getting the training that you need.
- Work with a team of undergraduate students. This will speed up data collection and give you some experience with managing and mentoring a team.
- Stay up-to-date (and keep me up-to-date) on any deadlines that you need to meet to fulfill departmental requirements. In general, this includes your external funding applications, your master's proposal and defense in your second year, your lit review proposal and defense in your third year (can be replaced with an NRSA application), and your dissertation proposal and defense in your fifth year.
- Prioritize time for research. It is easy to get caught up in coursework or TA-ing, but at the end of 5-ish years, you need to have completed a dissertation.

2.5 Lab managers

All of the above, plus you will be expected to:

- Maintain the lab IRB protocols and paperwork (e.g., archiving consent forms).
- Oversee the hiring, scheduling, and training of undergraduate research assistants.
- Maintain the lab internal website.
- Keep the lab manager manual up to date.
- Assist with participant recruitment and scheduling.
- Assist other lab members with data collection or analysis (typically you will be assigned to particular projects).
- Coordinate and take notes during weekly lab meetings.
- Help to maintain an atmosphere of professionalism within the lab.
- Work on your own research project.

2.6 Other full-time staff

All of the above, plus you will be expected to:

- Work on your own research project.
- Assist other lab members with data collection or analysis (typically you will be assigned to particular projects).
- Help to maintain an atmosphere of professionalism within the lab.
- Provide extra support to the lab manager.

2.7 Undergraduate students

All of the above, plus you will be expected to:

- Assist other lab members with data collection or analysis (typically you will be assigned to particular projects).
- Work with the lab manager and/or your research mentor to determine your weekly schedule. If you are not able to come in during your normal scheduled time, you must let the lab manager know.
- Provide extra support to the lab manager (this may include filing paperwork). If you are in lab and do not have a task to do, you should ask the lab manager or any other full-time lab member whether there is anything you can help out with.
- At the beginning of each semester, complete the start-of-semester form pinned to the `#undergrads` channel on Slack.
- At the end of each semester, complete the end-of-semester form pinned to the `#undergrads` channel on Slack.
- Undergraduates who work in the lab for a full semester may have the option to assist with an EEG project (when available) during the following semesters in the lab.
- Undergraduates who work in the lab for a full year may have the option to assist with an fMRI project (when available) during the following semesters in the lab.
- For more information about undergraduate research positions and their requirements, refer to the Undergraduate research section below.

3. Code of conduct

3.1 General

In addition to the general expectations laid out above, I am dedicated to making our lab a safe, inclusive, and welcoming environment for all. Below you can find a specific code of conduct for behavior in the lab, as well as a broader discussion of what constitutes an inclusive environment.

Harassment Policy[1]

All members of the lab, along with visitors, are expected to agree with the following code of conduct. We will enforce this code as needed. We expect cooperation from all members to help ensure a safe environment for everybody. Please also see the Boston College Discriminatory Harassment Policy.

The Quick Version

The lab is dedicated to providing a harassment-free experience for everyone, regardless of gender, gender identity and expression, age, sexual orientation, disability, socioeconomic status, physical appearance, body size, race, national origin, or religion (or lack thereof). We do not tolerate harassment of lab members in any form. Sexual language and imagery is generally not appropriate for any lab venue, including lab meetings, presentations, or discussions.

[1] This section (the Quick & Less Quick Versions) was adapted from this site. Original source and credit: JSConf & The Ada Initiative.

The Less Quick Version

Harassment includes offensive verbal comments related to gender, gender identity and expression, age, sexual orientation, disability, socioeconomic status, physical appearance, body size, race, national origin, or religion, sexual images in public spaces, deliberate intimidation, stalking, following, harassing photography or recording, sustained disruption of talks or other events, inappropriate physical contact, and unwelcome sexual attention. Members asked to stop any harassing behavior are expected to comply immediately.

If you are being harassed, notice that someone else is being harassed, or have any other concerns, please contact Maureen Ritchey immediately. If Maureen is the cause of your concern, then please reach out to the department chair or another trusted departmental member who can assist.

Building an inclusive lab environment

The above code deals specifically with behaviors that are considered harassment. Yet building an inclusive environment goes well beyond avoiding harassment. I expect all lab members to treat one another with respect and to be sensitive to how one's words and actions impact others. We do not tolerate the perpetuation of stereotypes; we do not tolerate other acts of microaggression (see this helpful doc for info on recognizing microaggressions in academia). We believe that every person in the lab is an individual with their own story and unique talents to offer. We are a team. We stand up for one another. We learn from each other. We hold each other accountable.

All people should have equitable access to different kinds of careers and learning opportunities. We also know that science benefits from diverse perspectives. Our lab is committed to increasing the diversity of our scientific community and to integrating and supporting groups that are currently underrepresented. I have found this document to be a helpful resource for identifying concrete actions that we can take as a lab and as part of the larger scientific community.

3.2 Scientific integrity

Reproducible research

Reproducible research is research that can be exactly reproduced. This is related to replicability, in that it has to do with your ability to get the same results again, but it refers specifically to getting the same results given the *same set of data*. I expect that all of our research will be, at minimum, reproducible (when possible, we will also test for replicability).

Conducting reproducible research is more difficult than it sounds, because it requires that you are organized and possess sufficient foresight to document each step of your research process. There are two main things you can do to improve the reproducibility of your research: 1) extensive note-taking (i.e., as much as you can manage) and 2) programming workflows with version control.

Programming workflows help with reproducibility because they take some of the human element out, and in an ideal scenario, you are left with a script or series of scripts that takes data from raw form to final product. Programming alone is not enough, though, because people can easily forget which script changes they made and when. Therefore, all projects that involve programming of any kind (so basically, all projects) must use some form of version control. I strongly recommend git in combination with GitHub (see below), unless you have a pre-existing workflow. This is a hard requirement because a) it is the only way to definitively track the evolution of methods/files over time, b) it allows for easier detection of bugs, c) it facilitates code sharing, and d) it has nice side effects for workflow organization (e.g., thinking in

terms of commits, branches, issues). Points a, b, and c are directly relevant to the mission of conducting reproducible research.

Experiment pre-analysis plans

You are encouraged to file a pre-analysis plan for any new study that you are beginning. I am flexible about the format of such a plan. Some trainees have opted to publish their pre-analysis plans on AsPredicted.org; others have published them on the Open Science Framework. I do not require publishing these plans (except in particular circumstances that demand their use), but I do strongly encourage everyone to, at minimum, write one for your own personal reference. It is far too easy to forget what you planned to do at the start, before you saw any of the data, especially with fMRI studies.

Authorship

We will follow APA guidelines with respect to authorship:

"Authorship credit should reflect the individual's contribution to the study. An author is considered anyone involved with initial research design, data collection and analysis, manuscript drafting, and final approval. However, the following do not necessarily qualify for authorship: providing funding or resources, mentorship, or contributing research but not helping with the publication itself. The primary author assumes responsibility for the publication, making sure that the data are accurate, that all deserving authors have been credited, that all authors have given their approval to the final draft; and handles responses to inquiries after the manuscript is published."

Authorship will be discussed prior to the beginning of a new project, so that expectations are clearly defined. However, changes to authorship may occur over the course of a project if a new person becomes involved or if someone is not fulfilling their planned role. In general, I expect that graduate students and postdocs will be first authors on publications on which they are the primary lead, and I will be the last author.

Old projects

For projects that required significant lab resources (e.g., fMRI or EEG studies or any other study requiring a great deal of time, money, or lab effort): Project "ownership" expires 3 years after data collection has ended (or whenever the original primary lead relinquishes their rights to the study, whichever comes first). At that point, I reserve the right to re-assign the project (or not) as needed to expedite publication. This policy is intended to avoid situations in which a dataset languishes for a long period of time, while still giving publication priority to the original primary lead.

3.3 Human subjects research

Because we are engaged in human subjects research, it is of the *utmost importance* that we adhere to our approved IRB protocols. **All lab members, including undergraduates, must read and comply with the IRB consent form and research summary for any project that they are working on. This is an absolute requirement.** Lab members must also complete the CITI training and be added to the research personnel list before they can work with human subjects. If there are any questions about the protocols, or if you're not sure whether we have IRB approval to run your study, please ask the lab manager or me for clarification. If necessary, the lab manager can file an amendment to an existing protocol or create a new protocol.

If you encounter any problems in the course of doing research that results in a negative outcome for the participant (e.g., if a participant becomes ill or upset, if there is an accident with the equipment, if there is

a breach of confidentiality, etc), you should immediately seek assistance from me or the lab manager. If I am not around, **you must notify me *within 24 hours***, preferably as soon as possible. In some cases, we may need to report this information to the IRB and/or our funding agencies.

4. Lab Resources

Slack

Slack will be used as the primary means of lab communication, such as general lab announcements (`#general`), sharing links, sharing and/or discussing papers (`#papers`), and basically any message that can be sent without email. There's also a channel for keeping notes from our lab meetings (`#lab-meetings`), as well as channels for methods tips (e.g., `#fmri-methods`) and specific projects. Try to keep each channel on topic, so that people can subscribe only to the channels that concern them. For messages to one person or a small group of people, use the direct message channels.

Full-time lab members should install Slack to their computers and/or phones. Part-time lab members should check Slack regularly. I get Slack updates on my phone and have do-not-disturb mode enabled for evening and night hours (meaning I may not get your messages then); I encourage you to do the same.

Internal lab website

The internal lab website will be used as a repository for lab knowledge, particularly as it pertains to research methods and documentation of lab procedures/ management. If you learn something new, share it on the website. If you're trying to find out how to do something, search first on the website. The lab manager is responsible for keeping the internal lab website up to date, but all lab members should pitch in.

GitHub

All projects that involve programming of any kind must use some form of version control. We have a GitHub organization set up with unlimited private repositories, allowing you to sync your code to the cloud and share it easily with other lab members. We will also use GitHub for sharing script examples and hosting lab toolboxes for general use.

Google Drive

The MemoLab **shared team drive** on Google Drive is used to store documents and files for general lab use (e.g., IRB documents, stimuli, pdfs, etc). It can also be used for some forms of non-identifiable data, but double-check with Maureen or the lab manager before you start storing data there. The shared drive is used to ensure that the lab will maintain owner access over the files even after individual team members have left.

Google Calendar

Google Calendar is used to host a general lab calendar (MemoLab), as well as calendars for the in-lab testing rooms.

Email

When it's necessary to forward or send emails to the entire lab, we have a list for that: `memolab-list@bc.edu` (registered users only). We also have a list for full-time lab members only (registered users only): `memolab-core-ggroup@bc.edu`. Finally, we have a lab email account that goes to only me and the lab manager: `thememolab@bc.edu`.

Online testing

We currently have IRB approval to run online behavioral studies using Sona or mTurk for participant recruitment and Testable, PsychoPy/Pavlovia, or BC-hosted code for experiment presentation. Consult with the lab manager on how to set this up for your own use and what is and is not covered under our current IRB protocols.

5. General policies

5.1 Hours

One of the benefits of a career in academic research is that it is typically more flexible than other kinds of jobs. However, you should still treat it like a job. If you are employed for 40 hours a week, you should be working 40 hours a week. This applies to lab staff members (the lab manager and other research assistants) and postdocs. You are not required to work over-time. For graduate students, I recognize that you have other demands on your time like classes and TA-ing but I still expect that you will be regularly engaged in your research.

Lab staff members are expected to keep regular hours (e.g., somewhere in the ballpark of 9-5). Graduate students and postdocs have more flexibility. However, in order to encourage lab interaction, I expect that all lab members will be in the lab (or available on Slack, when working remotely), at minimum, most weekdays between 11am and 3pm or so. If you're going to be taking off from work on a normal workday (i.e., taking vacation or a personal or sick day), please put it on the MemoLab calendar.

PI availability

In addition to poking my head into the lab regularly, I will be working on campus and available for meetings most days of the week. If my door is open, feel free to pop in. Because I am easily distracted, I ask that if my door is closed, send me a message or try me later rather than knock. I'm also happy to set ad-hoc meetings to discuss anything over and above our weekly lab and individual meetings.

When working remotely, I'll be similarly available over Slack and for ad-hoc meetings during regular office hours. But I try to turn my notifications off when I'm going to be concentrating on something else for a long stretch.

5.2 Meetings

Lab meetings

Weekly lab meetings will be focused on project presentations and going over new data or methods. Lab meetings will last no longer than 1.5 hours. If at the end of 1.5 hours, we need more time to discuss something, we will schedule another meeting. Lab meeting plans and notes will be maintained in the `#lab-meetings` channel on Slack; there is also a doc for lab meeting minutes. All full-time lab members are expected to attend the weekly lab meeting. All part-time lab members (including undergraduates) are welcome to attend but attendance is not required, except for thesis students, URF students, and students earning course credit.

During extended periods of working remotely, such as during the COVID-19 pandemic, we will also have regular lab “check-ins” (currently on a Mon-Wed-Fri schedule) to set up our goals for the week, encourage casual interactions, etc.

Individual meetings

At the beginning of each semester, I will set a schedule to meet with each full-time lab member for one hour a week. If we do not have anything to discuss in a given week, that's fine- we can just say hi or cancel it. Before each meeting, update your meeting agenda; this will also be a place where we document next steps. Over the summer, we may set the schedule on a weekly basis since schedules are more flexible and variable then. I am also open to additional project-focused meetings as needed-- just ask or send me a calendar invitation.

Journal clubs & joint lab meetings

In addition, we sometimes hold separate joint lab meetings or journal clubs. In the past, we have held joint lab meetings with the BC CAN lab and with the multi-lab Context and Affective Memory group. Joint lab meeting topics include project presentations, article discussions, and practice talks. The journal club is focused on discussing new and/or important research articles. Some weeks, we'll discuss a single article that everyone has read; other weeks, we'll each read a paper on a specific theme and do mini-presentations on each paper. As with our internal lab meetings, all full-time lab members are expected to attend these additional meetings, and part-time lab members are invited but not required to attend.

5.3 Deadlines

If you need something from me by a particular deadline, please inform me as soon as you are aware of the deadline so that I can allocate my time as efficiently as possible. I will expect at least one week's notice, but I greatly prefer two weeks' notice. I will require two weeks' notice for letters of recommendation. If you do not adhere to these guidelines, I may not be able to meet your deadline. Please note that this applies to reading/ commenting on abstracts, papers, and manuscripts, in addition to filling out paperwork, etc. Reminder messages are appreciated.

5.4 Presentations

I encourage you to seek out opportunities to present your research to the department, research community, or general public. If you are going to give a presentation (including posters and talks), please be prepared to give a practice presentation to the lab at least one week ahead of time. Not only will this help you feel comfortable with the presentation, it will give you time to implement any feedback. I care about practice presentations because a) presenting your work is a huge part of being successful in science and it's important that you practice those skills as often as possible, and b) you are going to be representing not only yourself but also the rest of the lab.

There is a lab template for posters that you are free to modify as you see fit, but the header and general aesthetic should stay similar. If you have ideas for how to improve the poster template, please show the lab so we can decide whether to implement them as a group. This will help increase the visibility of our lab at conferences. (Don't believe me? Check out the various lab "walls" at the next conference you attend.) There is no template for talks, and I encourage you to use your own style of presentation as long as it is polished and clear.

When making figures, it is helpful if you follow a few color-coding conventions, so that it's easier to keep things consistent when I present your work in talks. In the MTL, I always code the PRC as red, the PHC as blue, and the hippocampus as purple. If you're focused on the PM network and it makes sense to use different colors for different regions, please refer to the color scheme in our 2020 review. I feel a little silly requesting this but I promise, it really helps!

5.5 Lab travel

The lab will typically pay for full-time lab members to present their work at major conferences (e.g., SFN, CNS, CEMS). In general, the work should be "new" in that it has not been presented previously, and it should be appropriate for the conference. This will usually result in one conference per year. When I set our grant budgets, I estimate $1500 per trip, so your reimbursable costs should be around that amount or less. Meal costs will be reimbursed for people who are presenting work from the lab. The lab will also pay for new grad students and postdocs to attend one conference in their first year in lab (i.e., without presenting). If you wish to attend any other conference outside of these guidelines, under some circumstances I may be willing to have the lab reimburse you for the registration fee. If travel expenses are being paid off of a grant, additional restrictions may apply (talk to me). All of these guidelines, of course, depend on the availability of funds. Lab members are required to apply for other sources of funding available to them (e.g., departmental funds for grad students, BC postdoc travel awards).

5.6 Recommendation letters

Letters of recommendation are one of the many benefits of working in a research lab. I will write a letter for any student or lab member who has spent at least one year in the lab. Letters will be provided for shorter-term lab members in exceptional circumstances (e.g., new graduate students or postdocs applying for fellowships). I maintain this policy because I do not think that I can adequately evaluate someone who has been around for less than a year.

To request a letter of recommendation, please adhere to the deadline requirements described above. Send me your current CV and any relevant instructions for the contents of the letter. If you are applying for a grant, send me your specific aims or a short summary of the grant. In some but not all cases, I may ask you to draft a letter, which I will then revise to be consistent with my evaluation. This will ensure that I do not miss any details about your work that you think are relevant to the position you're applying for, and it will also help me complete the letter in a timely fashion. You are advised to send me a reminder message close to the letter deadline.

5.7 Data management

Storing active datasets

In general, data will be stored in one of three places:

- Lab folder on secure departmental server
    - Data to store here: consent forms, keys to subject IDs (identifiable data ok), behavioral data from second-wave IRBs
- Google Drive
    - Data to store here: behavioral data from first-wave IRBs (but no identifiable data!!!)
    - All BC account holders have unlimited storage on Google Drive
    - All data files should be saved under the MemoLab shared drive so that the lab retains ownership of the files
- Linux cluster

    - Data to store here: MRI and EEG data (identifiable data ok)

Please consult the IRB protocol corresponding to your study to confirm where you should be storing data (noting that different protocols have different restrictions with respect to behavioral data, for historical reasons). These locations are all backed up regularly, which make them particularly appealing options for data storage. In general, you should not store data locally on your computer unless it is approved to be synced with your Google Drive folder (de-identified data only).

Data organization

For FMRI and EEG projects, you should consult the BIDS framework. For other projects, or to supplement BIDS, you should use the following organizational scheme or something similar:

- `ProjectName/Data`
    - contains a folder for raw data - always keep a copy of the raw (i.e., unprocessed) data & keep it separate from the copy that you're using in your pipeline
    - subject folders for processed data
    - this folder also contains a file documenting demographic & other summary info
- `ProjectName/Analysis`
    - contains folders for each type of analysis, e.g., `AnalysisOne`, `AnalysisTwo` etc
- `ProjectName/Task`
    - contains folders for stimuli & presentation scripts, as well as any piloting info/data
- `ProjectName/Resources`
    - contains miscellaneous resources relevant to a project, e.g., ROIs, papers that are direct references for particular methods
- `ProjectName/Scripts`
    - contains subfolders for different kinds of scripts, e.g., behav, preproc, helper, model, mvpa, etc
    - the Scripts folder is git-tracked & contains a `README.md` file that describes as much info as possible about the study
    - if you are using both git & Google Drive, and you're collaborating with others, be careful about syncing the Scripts folder to Google Drive because that could lead to confusion about what has been synced and how. Conversely, don't sync stimuli & data files to git because that will blow up your repo over time. You can use symbolic links to tie everything together.

When you archive the dataset, you will be required to format it like this (or something similarly transparent in its organization), so might as well start that way.

Archiving inactive datasets

Before you leave the lab, you will be required to document and archive any dataset that you have collected. I will review the dataset with you before you leave. MRI and EEG data should be archived on the Linux cluster, and behavioral data should be archived on the secure departmental server.

Data sharing

Not only is data-sharing the right thing to do, we are actually required to do so for any dataset that was funded by the NIH. We will make these datasets publicly available within a year of publishing the first paper from the dataset. Currently, the best option for sharing smaller datasets seems to be the Open Science Framework, and the best option for sharing MRI and EEG datasets is OpenNeuro.

You should also be prepared to share any scripts that you used in your published processing & analysis pipeline. See this site for an example of how we have typically done this. We release this site at the same time that we submit the paper for publication.

6. Funding

Funding for the lab comes from a variety of sources, including federal agencies (e.g., NIH), private foundations (e.g., Brain & Behavior Research Foundation), and internal funds from Boston College. I will oversee all aspects of the financial management of our funding sources. However, it is important to me to be transparent about where research money comes from and how it's spent. You can find some details on our internal lab website, but please do not hesitate to ask if you want to know more details. In general, external funds tend to be restricted to expenses related to a particular project or set of projects, whereas some of the internal funds are flexible in that they can be used for any justifiable work-related purpose.

All research funded by external grants *must* acknowledge the funding agency and grant number upon publication. This is essential for documenting that we are turning their money into research findings. We must also submit a yearly progress report describing what we have accomplished. Lab members involved in the research will be asked to contribute to the progress report.

7. Undergraduate research

Undergraduate research assistants play an important role in our lab, and we have opportunities for them to earn credit or money for their contributions.

1. If you want to work in lab and earn course credit, you can sign up for **undergraduate research** (info). We will have to fill out a syllabus contract at the beginning of the semester. Typically you would be in lab for at least 10 hours a week, and you would also be required to attend lab meetings, read a few papers, and complete a few short written assignments. You can enroll in undergraduate research multiple times.
    a. If you are interested in completing a senior thesis project, I recommend enrolling in this course during your junior year.
2. If you want to work in lab and earn money, there are two different options.
    a. The lab can pay you as a **research assistant**, typically between 4-8 hours per week. We have a limited number of hours available each semester, so these positions are competitive.
    b. We can apply for an **undergraduate research fellowship** to fund your time in lab. Candidates are expected to be academically strong (typically, GPA of 3.4 or above), and you would be expected to work 12-15 hours per week. Because these fellowships are intended to support your academic development, URF students will be required to participate in lab meetings.
        i. This option is also available during the summer. If you are interested in working in lab over the summer, talk to me about it as far in advance as you can.
    c. Both of these options can be applied to **work-study**. Note that if you have another BC job, you're not allowed to work more than 20 hours per week during the academic year, and that includes paid lab or URF hours.
    d. If you have research funding from another source, let us know.
3. Note that we do not take unpaid volunteers as research assistants in our lab. However, we may occasionally host learning experiences (e.g., workshops) that anyone is welcome to attend.