

# GLySN

Gwilliams  
Laboratory  
of Speech  
Neuroscience

## Lab Manual

### Introduction

This is the guidebook on being part of the Gwilliams Lab at Stanford University. In this document, I (Laura) provide an overview of expectations, roles, and responsibilities. If you are new to the lab, welcome, and expectation number one is that you will read this manual! If you are considering joining the lab, this is a good document to read to get a sense of how the lab operates. For current lab members – we will revisit this document at the beginning of each academic year (or, if there is an intake of lots of new lab folks later in the year), in order to make sure we keep things up to date and fill in the inevitable holes of information. If you have suggestions or questions at *any point*, please contact Laura, and she will be happy to clarify.

Last update: 9/7/25

This manual builds from Cameron T Ellis (Stanford) and Mariam Aly (Columbia) – thank you, both!

## Cultural Expectations

When expectations are clear, this helps bring the team together along a set of common assumptions. Ambiguities can lead to distrust and conflict. If, at any point, you do not understand what is expected of you, in any of the dimensions below, or other dimensions not listed here, ask Laura. I will be more than happy to disambiguate what is expected.

**Values.** The Gwilliams Lab promotes and values a culture of collaboration, kindness, and scientific rigor. Science is best conducted as a team rather than an individualized pursuit. We work together; we do not compete with each other. The success of the team is the success of everyone in the team. It is expected that you will always be supportive of your teammates and colleagues. Help others, and you can expect others to help you when you need it.

**Self Care.** It is so important to also take care of yourself. Eat well; sleep well; fill your life with the things that make you happy. Moments of stress and heavy work-load will happen, but making this the default is not sustainable.

**Communication.** Talk often, and talk early. Even though it can be scary, if you bring up potential road blocks early, it is much easier to address them. Frequent communication also builds trust. It is assumed that anything you share with Laura is shared in confidence and will not be shared with others, unless you explicitly request otherwise. “Do the scary things first”.

**Challenges.** If tension or conflict arises, the best approach is to address it early. The more time that goes by, the more the negative feelings culminate into something that is much harder to address and resolve. Laura is here to help navigate difficult situations and conversations. We can't thrive in an environment we aren't comfortable in, and disrespect or rudeness will not be tolerated in the lab.

**Rigor.** Science unfolds slowly. Do not rush your work. Think about it. Implement it. Double and triple check it. Incorporate sanity checks. Ask others to look at your code or data if you need help or something looks off. It is OK to make mistakes, but mistakes should not arise from carelessness or rushed work. Be kind to future you. The work you put in now will pay dividends later.

**Mistakes** happen. If you do make a mistake, you should definitely tell your collaborators (if they have already seen the results, and especially if the paper is being written up, is already submitted, or already accepted). We admit our mistakes, and then we correct them and move on.

**Honesty.** There is no situation in which faking data or tweaking results is acceptable. We are here to make true scientific discoveries, and to truthfully report when our ideas do not work out. If there is any indication that there has been an intentional attempt to falsely report results, this

will be taken extremely seriously and may result in termination of employment. If you think that someone else in the lab may be manipulating their data, tell Laura immediately.

**Take Initiative.** While I am trying to be as comprehensive in this manual as possible, I cannot conceive of every possible eventuality. Please execute common sense, and take your own initiative from your own best judgment.

**Collaborators.** A core value of the lab is that the best research comes from meaningful collaborations across disciplines and domains of expertise. It is expected that every member in the lab will be respectful and kind to all of our collaborators, and I expect the same in return. If you ever experience active-, passive-, or micro- aggressive behavior from any of our collaborators, or behavior that you otherwise deem inappropriate, please tell Laura immediately. The Gwilliams Lab does not condone working with individuals who do not exhibit mutual respect and trust. A lot of these collaborators will be individuals from different disciplines, for example clinicians or medical students, and you should be willing to navigate different norms of interaction with such individuals, but never rudeness, aggression or disrespect.

Working with collaborators is an incredible way of taking our work to “another level” by sharing complementary expertise and working within a larger community of scientists. It does also come with additional responsibilities and considerations that are described in more detail in section “Working with Collaborators” below.

**Open Science.** Many journal articles are behind large paywalls, some of the most popular commercial software requires expensive licenses to use, and the cost of sending trainees to international conferences is often too high to justify for academics in lower resource institutions. The Gwilliams Lab is a strong and active supporter of Open Science and its ability to overcome these monetary and bureaucratic hurdles, in order to make science available to all worldwide. We will make all papers available online through pre-print servers, online services such as Research Gate and on our website. We also host online presentation slides, poster reprints, and video recordings of conference presentations and invited talks. Furthermore, we try to use open source software such as Python in our research wherever possible, and thoroughly comment code and make it available on Github for others to use and edit.

**Diversity, Equity, Inclusion (DEI).** As academic professionals, it is our responsibility to support and actively promote diversity and inclusively when training the next generation of scientists. Historically, we have quite simply failed to do so. The situation is particularly striking in computational neuroscience: in 2016, across all career stages, only ~17% of the attendees to COSYNE were women; in 2018 and 2020, only ~15% of NeurIPS attendees were women. In terms of race and ethnicity, 2018 NeurIPS reported ~89% of attendees were either White, European, East Asian or South Asian. These statistics bring to light the true magnitude of the challenges we face. Science should be equally accessible to all and should fairly represent the wider population in terms of race, ethnicity, gender, disability, sexual orientation, gender identity, national origin and socio-economic status. I am deeply and personally committed to making substantial and quantifiable progress towards this goal.

## Day-to-day

**Sick days.** If you're sick, stay home and take care of yourself. Because you need it, and to protect others from catching your sickness. If you're sick, reschedule your meetings and participants for the day (or the next couple of days) as soon as you can.

**Vacation days.** As requested by lab members in our review of this manual on 3/7/24, all lab members are permitted 15 paid time off (PTO) days. Please request days off as early as possible, and no less than 2 weeks in advance. Once confirmed with Laura, add your vacation days to the lab calendar.

**Schedule.** You are not expected to come into lab on weekends and holidays, and you are not expected to stay late at night. It is OK to send emails or slack messages outside of regular work hours; it is OK not to reply right away if you receive them outside of working hours. It is expected that you will spend time in the lab in an approximate 9am-5pm schedule, that can be flexibly shifted depending on the schedule that best suits your working style. As long as work is getting done, you are attending meetings, and engaging with the Stanford community, the specifics of your schedule will not be an issue.

**Work from home days.** I would like to foster a lab environment where people see each other in person regularly. It is OK to have one or two work-from-home days a week, but please indicate your work from home days on the calendar, and try to organize your schedule to maximize time in-person. Do not work from home on days where we have group meetings, lab meetings, or department colloquium talks.

**Stretches of remote work.** On occasion, it is OK to work remotely for spans of time. This can be particularly beneficial if home is far away and you would like to spend stretches of time without taking up all your PTO. Please discuss this with Laura before planning remote work. If you are working remotely, it is expected that you will work an approximate 9-5 schedule as you would in the office, and attend 1-1 and joint meetings. Issues with time-differences can be discussed with Laura to find alternative meeting times.

**Expected participation.** In order to foster your, and the lab's, belonging within the scientific community, it is important to attend organized meetings and talks.

**Meetings.** Show up to your meetings, show up to run your participants, show up to your classes, and show up to lab meetings. Be on time. Respect that others have packed days and everyone's time is valuable.

**Lab Space.** Keep the lab tidy. Eating in the lab is fine, but please clean food waste, crumbs, spills. Put lab equipment back where you found it. Keep common areas uncluttered.

**Dress Code.** Flexible but not pajamas. When interacting with participants or presenting your work, don't wear sweatpants. Jeans are fine.

**Back up your data.** Back up your data. Currently the lab uses the "[CrashPlan](#)" system. If you do not know how to set this up, please talk to the IT department.

**Be A Closer.** One substantial challenge is keeping focused on completing a given task before moving to a new and seemingly more interesting one. This creeps in at the level of small daily tasks, and at the level of entire research projects. Be A Closer. Finish your small task or big paper before you move on to a new one. Write down your amazing new idea in a notebook, but leave it in that notebook until you have ticked off the previous thing on your list.

**Grants and Funding.** As the PI of the lab, it is my responsibility to make sure that we have sufficient funds to pay everyone's salary and do the (incredible) research we want to do. If I have hired you, I guarantee funding for the time period listed on your offer letter. I will be open with everyone about the current funds available in the lab, current pending funds, and the success and failure of grant applications. I want to give everyone in the lab a realistic perspective of what it means to run a lab, and securing funding is a major component of this.

## Lab Meeting

**Schedule.** Before each quarter, we will schedule lab meeting presentations that will comprise a combination of (i) individual research updates; (ii) journal club style presentations on papers of interest; (iii) invited speakers. Everyone will be expected to sign up to at least one presentation slot per quarter, including at least one research update per quarter.

**Location.** Lab meetings will be hosted in the Wu Tsai Neurosciences building, in the same room at the same time each week, which will be decided before the quarter starts. Some weeks may require shifting the lab meeting time, and this will be communicated in advance.

**Food.** If lab meeting happens before noon, bagels and coffee will be provided. If lab meeting happens between 12-3pm, lunch will be provided.

**Individual Research Updates.** You are expected to take your lab meeting presentation seriously. This is your chance to share your research with the group, get feedback, and develop your presentation skills. If presenting a project update, please send Laura the slides of your presentation ideally 2 days before, in order to receive feedback. Please prepare material for a ~30 minute presentation, to give plenty of opportunity for discussion and feedback. Put care into how your slides look, and practice the presentation before you present to the group.

When others are presenting, you are expected to be engaged, to ask thoughtful questions, and to be respectful and constructive in the feedback you provide. It can be daunting and vulnerable

to present in front of the group, and we want to make this an opportunity for growth and development, not the acquisition of new fears and doubts. So be honest in your feedback but ensure that the suggestions are constructive, and actionable. Also make sure you are asking questions for the right reasons: The right reason is because you think that the suggestion will help the other person, or because you are genuinely interested in the answer; The wrong reason is because you think it will make you sound intelligent in front of others, or because you want to put the other person down. The second is an example of inappropriate behavior and will be addressed as such.

**Journal Club Presentations.** When someone presents a paper, it is expected that everyone in the group has read the paper. Please engage with the material, and come prepared with comments and questions. All types of papers are welcome for discussion, including review articles, old research papers, new research papers – anything that you think would be of interest to the group. If the article is more niche, it may be better to discuss as a sub-group: This can be gauged through a lab poll on slack.

**Invited Speakers.** As with individual research update presentations, when an invited speaker gives a talk, you are expected to be engaged and ask thoughtful questions. Use this opportunity to get to know the work of the presenter, and engage with their topic of expertise.

## Data and Code

**Data management plan.** Every project should have a data management and data structure plan. This will save time later down the line. This should get drafted before data collection begins, and approved by Laura and any other collaborators.

**School of Medicine Box.** Data that contains sensitive PHI information will be stored securely in Box as hosted by Stanford school of medicine. Here, we will have copies of the raw data prior to any wrangling or preprocessing, and a separate store for BIDS-compliant data structure.

**Oak.** The high performance cluster (HPC) contains various partitions. Oak is a partition that provide automatic backup and large data storage. Data that has been anonymized and PHI information removed will be stored on Oak. If this is neural data, it will be stored in BIDS format.

**Sherlock.** Everyone in the lab will have access to a compute node on Sherlock, which is part of the HPC. This will be used to store data that is being actively analyzed. It is not automatically backed up – Oak should be used for archival purposes.

**Github.** Code is expected to be made readable by an outside user with limited domain specific knowledge. This code should be hosted on Github. The workflow for sharing code onto github is to first have the project code on your personal repository, and then once the code is in

reasonable shape (e.g., upon initial manuscript submission) this can be moved over to the lab repository.

**BIDS.** All data should be stored in standardised BIDS format. We will share aggregated data sufficient to reconstruct data figures and main statistical analyses upon acceptance of a manuscript.

## Publishing and Conferences

**Authorship.** At the start of a new project, the trainee taking on the lead role can expect to be first author (talk to Laura if you are not sure). Laura will typically be the last author, unless the project is primarily under the guidance of another PI and Laura is involved as a secondary PI – then Laura will be second to last and the main PI will be last. Other trainees who help over the course of the project may be added to the author list depending on their contribution, and their placement will be discussed with all parties involved in the paper. If a student or post-doc takes on a project but subsequently hands it off to another student or post-doc, they will most likely lose first-authorship to that student or post-doc, unless co-first-authorship is appropriate. All of these issues will be discussed openly, and you should feel free to bring them up if you are not sure of your authorship status or want to challenge it.

If an individual collects data for a project, but does not otherwise contribute, the individual will be offered authorship if they: (i) collect at least 80% of the total amount of data collected (including pilot data); AND (ii) contribute 80 hours or more in data collection (equivalent to 2 full work weeks). If the contribution was purely in terms of data collection, authorship will be granted on the first paper to be published from the data (and, will not continue indefinitely if subsequent papers are published with the same dataset). If preprocessing was also applied to the data, it will be determined the amount of time this took. If the summed amount of time of data collection and preprocessing exceeds 80 hours, then authorship on the paper will be granted if desired.

**Publication Fees.** If Laura is the last author of a paper, she will likely be willing to pay the associated fees for publishing with Open Access permission. If Laura is not last author, we will need to discuss who takes responsibility for publication fees.

**Workshops.** Attendance of workshops that require substantial funding will be given priority to graduate students. Lab members should discuss their desire to attend a given workshop 4 weeks prior to the application deadline.

**Conferences.** An important component of navigating academia as a trainee is getting to know the people (and research) in the field. However, attending conferences takes up a lot of time, and is very expensive in most cases. In order to strike a balance between these competing truths, all members of the lab will be permitted to attend one conference per year, if their work is accepted as a first or co-first author on a poster or presentation. Requests to attend a

conference without presenting work need to be well justified, and given to Laura well in advance. Requests to attend more than one conference per year, needs to be well justified and given to Laura well in advance.

## Working with Collaborators

Additional responsibilities come along with having projects that involve collaborators. We want to be known as a lab that is “good to collaborate with”. As with many things, I believe that 90% of being a good collaborator comes with being a good communicator. As a minimum, I would like us to hold the following standards:

- In the beginning of the collaboration, there should be an introduction between the person working on the project, and the collaborator(s).
- Updates to the collaborators should be provided approximately once per month. This could come in the form of a presentation to provide a larger update, or an email to provide a smaller update. Even an update like “I have not made much progress this month” is still valuable to keep everyone on the same page.
- If the work is expected to be submitted to a conference, the collaborators should be asked for their consent 4-6 weeks before the submission deadline. At this stage, the collaborators should be asked how far in advance they would prefer to see a draft of the submission - we will default to 10 days, unless expressed otherwise.

## Reimbursement

**Reimbursements to personal account.** If you used your own money for a valid reimbursable item or event – such as travel to a conference or conference fees, you will have these funds reimbursed to you. Make sure that you get permission from Laura to purchase the items and get reimbursed before you purchase them. You will need to know the appropriate PTA account to charge the funds to, and Laura will tell you this. **Provide all receipts no more than 30 days after the purchase was made.** Do not procrastinate on this.

**Reimbursements to the lab credit card.** Some other purchases will be performed using the lab credit card. For example, to reimburse participants in experiments. Any charges made to the lab p-card need to have corresponding receipts sent to the finance administrator no later than 1 week after the charge was made. For Mechanical Turk, those payments occur on the first of the month. For other payments such as Amazon gift cards, they are made within 24 hours.

## Role-Specific Expectations

### Expectations for Lab Managers

It is expected that the lab manager will spend approximately 50% of their time on tasks that help further progress in the lab (detailed below), and their remaining time pursuing their own research project. Lab administrative work takes precedence over research by default, unless communicated otherwise by Laura. Some weeks may involve more admin tasks, whereas other weeks may involve more research tasks.

Individuals working as a lab manager will likely be aiming to later continue to a graduate program. It is therefore Laura's goal to provide an optimal learning environment to be exposed to the full inner workings of the lab to gain valuable experience for their future in academia, as well as give them the opportunity to conduct their own research project, and gaining experience with various modes of data collection and analysis skills, which will greatly assist in their applications to graduate school.

**Meetings with Laura.** You will have a 60 minute 1:1 scheduled meeting with Laura each week. This is expected to be in person unless requested for a virtual meeting at least 24 hours prior to meeting; and unless in case of sickness or emergency. Each week, it is expected that you will overview the tasks you completed the previous week, including lab tasks and research tasks. This is your opportunity to get Laura's uninterrupted time and attention to work through problems, so please try to be organized with a list of agenda items in order to make the most of the time. By the end of the meeting, you and Laura will together outline the priority tasks to focus on during the following week. Laura will follow up via email with a summary of what was discussed, and a summary of the tasks to do, as a reference point for the subsequent week.

**IRB.** Ensure that all protocols are up to date. Help to build new protocols. Ensure that lab members are following the protocols as described and approved by the IRB – including (but not limited to) participant recruitment, consent forms, payment receipts.

**Data Collection.** The lab manager may be asked to collect data for all projects ongoing in the lab, either partially or fully, including projects that they are not directly spearheading. These may be projects of other post-bachs in the lab, or graduate students, or postdocs; or, may be a dataset that Laura deems useful for future projects, even if the lead researcher has not yet been determined. Data collection is expected to be performed with utmost care and diligence. Scientific discoveries are only as powerful as the data that support them – collect good data!

**Lab Purchases.** The lab manager will be responsible for a lab "p-card", which can be used to purchase items for the lab. Purchases should be pre-approved by Laura. Other individuals in the lab may ask the lab manager to purchase an item, and after approval from Laura, the lab manager can do so.

**Lab Meetings.** The lab manager is responsible for overseeing the lab meeting schedule, and ensuring that there is an event booked for each scheduled meeting. They are also responsible for ordering and picking up coffee and pastries / bagels / sandwiches, depending on the lab meeting time.

**Google Calendar.** It is very important that the lab calendar is kept up to date, including the correct time, duration, location and descriptions, of the following types of activities:

- Lab events, such as group meetings and social activities
- Talks and events of interest across campus, including but not limited to:
  - Psychology Department
  - Data Science
  - Wu Tsai Neuroscience Institute
  - Knight Initiative
  - HAI
  - Stanford NLP
  - CCRMA

**Lab Social Activities.** The lab manager may be asked to organize social events, either within the lab or in collaboration with other labs.

**Auditing Classes.** If there are classes that you would like to audit, please ask Laura before approaching the professor. The lab manager will need to justify why this class will help them reach their learning and research goals, and what their plan is to ensure that this does not interfere with progress in their lab and research tasks. Auditing is OK as long as this does not interfere with completion of lab and research tasks.

**Research Project.** The lab manager will likely take the lead on a research project during their time in the lab. Similar to the expectations of graduate students, the lab manager will be expected to perform a literature review on the research topic, collect data (if not already collected), organize the data into a standardized format that can be easily interpreted by new users, analyze the data, and write a research article on the results.

## Expectations for Graduate Students

Graduate students will need to learn to balance the many demands on their time, including classes, teaching and research. Graduate school is a crucial time to learn new skills, and mature your own understanding of your research interests, as you carve the way to building an independent research program. It is Laura's priority to ensure that you are given full opportunity to explore different avenues of interests, skill sets, and approaches.

Laura recognises that there are many amazing career opportunities for PhD graduates outside of academia. The skills you gain during the PhD are valuable and applicable to many different domains. While Laura has the most direct experience with the academic path, she will also be supportive of students who would like to work in industry.

**Meetings with Laura.** You will have a 60 minute 1:1 scheduled meeting with Laura each week. This is expected to be in person unless requested for a virtual meeting at least 24 hours prior to meeting; and unless in case of sickness or emergency. Each week, it is expected that you will overview the tasks you completed the previous week, including research progress, class assignments and teaching, so that Laura can get an overview of how your time is being spent. This is your opportunity to get Laura's uninterrupted time and attention to work through problems, so please try to be organized with a list of agenda items in order to make the most of the time. By the end of the meeting, you and Laura will together outline the priority tasks to focus on during the following week.

**Classes.** The classes offered to PhD students are a really wonderful opportunity to gain and sharpen your technical skills and content knowledge. It is expected that you will work hard in your classes in order to get the most out of the learning experience. There will be some periods of time where there are a lot of class deadlines and homeworks due, which may get in the way of progress in other domains, such as your research. Try to plan ahead, foresee these likely busy moments in your schedule, and communicate them to Laura early so that you can come up with a plan to pre-empt these moments and shift heavier research workloads to different periods in the quarter.

**TAing.** Depending on the PhD program, there are different teaching requirements. It is expected that you will satisfy the requirements of the program, and do so to the best of your ability, while trying to not let it totally take over your life. It can be beneficial to act as a TA for a class that Laura is teaching – for example, Language Neuroscience – which aligns closely with the consent of your research, thus not demanding a totally different domain of focus.

**Research.** While there will be a lot of demands on your time, you should always be progressing on research projects. Even if the progress week by week is small, it is important that you remain engaged with your work. By the end of your first year (the beginning of the summer) you should have completed your first year paper, which should be close to being ready to submit to a journal for publication. Laura will check in with you regularly to make sure you are on track for reaching these goals.

One of the goals of the PhD is to provide you with the skills and knowledge set to develop your own independent line of research. In practice, this means that the first project will likely be an idea that Laura suggested, and that you develop to make your own. After this project, PhD students are encouraged to devise and pursue their own research ideas with the guidance of Laura.

**External Funds.** It is highly advantageous to demonstrate successful acquisition of your own funds. Laura will support and assist you in applying for funds within Stanford, to private institutions, or to governmental mechanisms.

**Internships and summer workshops.** If you have an interest in interning or attending a summer workshop, please discuss this with Laura as early as possible. The points to discuss will be (i) funding and (ii) time taken away from other projects that need to be completed. Laura will assess whether attendance is a benefit to your growth as a researcher, and worth the time and money.

## Expectations for Postdoctoral Researchers

Being a postdoc is such an exciting career stage! You have accrued so many skills during your PhD, and there are limited external demands on your time outside of research. It is Laura's goal to help you gain the experience, and produce the outputs that will best position you for the next step in your career.

**Meetings with Laura.** You will have a 60 minute 1:1 scheduled meeting with Laura each week. This is expected to be in person unless requested for a virtual meeting at least 24 hours prior to meeting; and unless in case of sickness or emergency. Each week, it is expected that you will overview the tasks you completed the previous week, including research progress, and other tasks that you are involved in. This is your opportunity to get Laura's uninterrupted time and attention to work through problems, so please try to be organized with a list of agenda items in order to make the most of the time. By the end of the meeting, you and Laura will together outline the priority tasks to focus on during the following week.

**Lingering PhD Projects.** It is quite normal that there is still work to be done to finish PhD projects while your postdoctoral position has already begun. Laura recognizes this, but expects you to be able to also make progress on your postdoctoral tasks. The best solution here is communication. If you are working on finishing a paper from your prior lab, communicate this to Laura during your 1:1 meeting and provide an estimate of how much of your time you will dedicate to this project over the coming week, and how much remaining time you think will be left to make progress on postdoctoral research.

**External Funds.** It is highly advantageous to demonstrate successful acquisition of your own funds. Laura will support and assist you in applying for funds within Stanford, to private institutions, or to governmental mechanisms.

**Research.** You will be expected to spearhead at least one research project during your time in the lab. As a postdoc, I expect that you have already begun to develop your own line of research, and I see my role to support you in continuing your development as an independent researcher.

**Mentorship.** As a postdoc, you will naturally be seen as a role model for more junior people in the lab. Please be aware of the power dynamic that comes with that, and the responsibility you therefore hold in setting a good example to others in your research ethic and approach.

## Expectations for Rotating Graduate Students

Lab rotations are an important time to understand whether your host lab is a good fit for your interests, whether you have a good working relationship with the members of the lab, and ultimately whether you think you would like to complete your PhD under the supervision of the PI. It is also a time for the PI to determine whether your research, reciprocally, would be a good fit for the goals of the lab.

**Kick-off meeting.** At the beginning of the rotation, you will have a meeting with Laura (and other PIs if the rotation is a co-mentorship arrangement). During this meeting, the timeline of goals, and the expectations for the rotation will be discussed and jointly agreed upon.

**Meetings with Laura.** You will have a 60 minute 1:1 scheduled meeting with Laura each week. This is expected to be in person unless requested for a virtual meeting at least 24 hours prior to meeting; and unless in case of sickness or emergency. Each week, it is expected that you will overview the research tasks you completed the previous week, and discuss challenges that arose. This is your opportunity to get Laura's uninterrupted time and attention to work through problems, so please try to be organized with a list of agenda items in order to make the most of the time. By the end of the meeting, you and Laura will together outline the priority tasks to focus on during the following week. A 10-week rotation goes by very quickly! Make sure that you have a clear understanding of the timeline of goals, and that you are making the most of each 1:1 meeting with your supervisor(s).

**Final Presentation.** At the end of the rotation, you will present the work that you have completed to the group during a formal lab meeting presentation. You should take this presentation seriously, as this reflects the work you have completed during the quarter.

## Expectations for Undergraduate Research Assistants

If you are working in the lab as an undergraduate, Laura has likely paired you with a current member of the lab to be your primary mentor during your time in the lab. It is the lab's goal to give you valuable research experience, that you can use to discover the root of your own interests, and to relate to future research positions.

We recognise that you have multiple demands on your time, and ask that you carefully consider whether you have the bandwidth to make a meaningful contribution to the lab and be sufficiently

present and engaged in research activities. This is numerically defined as dedicating at least 5 but ideally closer to 10 hours per week, on average, to lab activities, including meetings and social events. If the answer is “no”, then neither you nor the lab will benefit from this arrangement.

It is expected that you will complete tasks with your utmost ability and care.