

# Daly Lab Policies, Expectations, and Procedures

## Policies and Expectations

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Welcome to the Daly lab. This document provides policies you will need to know to be successful, in addition to some specific expectations you must meet to be in good standing in the Daly lab.

Research groups are diverse. There are undergraduate and graduate students, and sometimes technicians, postdocs, and the principal investigators (PI). I am the PI of the Daly lab. I advise everyone differently, depending on your specific strengths and weaknesses, and with respect to your position in the lab and your current progress towards your ultimate goals. This means that postdocs are mentored with the ultimate goal of obtaining the job of their choosing, and graduate students are mentored with the goal of learning to conduct independent research, etc... It is my job to advise you, advocate for you, and provide you with an environment and material support, conducive to progressing toward your goals. I am 100% invested in your success because your success is a metric of my success! However, I am not a good advisor to those who don't take the advice I give, this means that if you consistently choose to not take my advice, I will see this as an indication that its time for you to find another advisor. Furthermore, I am not (nor do I want to be) an expert in everything but I am excellent at solving problems. What does this mean for you? It means that your learning should be *significantly* self-directed but come to me with problems. I can advise you in areas of my expertise, and when problems arise that are outside my expertise, I can advise you in the right direction for that advice. But ultimately, you are the master of your destiny, which in this case is achieving your goals.

I will be direct with you when I find areas in any aspect of your career development that need improvement. Do not take my comments and questions about your performance, personally. It is my job to identify and help rectify, issues with your performance as it relates to your research career. Furthermore, you have chosen a field in which you will be expected to be self-critical, this is a fundamental aspect of science, so you should become accustomed to handling such criticism. Remember, I am only trying to help you. When issues are identified we will work together to identify solutions. On the other hand, if you don't hear from me, it is likely because I think you are making appropriate progress.

Additionally, it is important for you to recognize that there are no "universal" expectations of graduate students in the Department of Biology at WVU other than the specific milestones and codes of conduct set forth in the Graduate Student Handbook. Research performance expectations are specific to each research group. I expect my group to be leaders, meaning that you should be the examples that other group leaders point to when showing their own student's the ropes. The bar is set high; become accustomed to high expectations.

Below, you will find more specific rules and expectations for the Daly lab. If you have any questions or concerns regarding the following content, please feel free to discuss with me at your convenience.

**Research:** You will be expected to conduct two types of research in the lab: 1) your own specific projects for which you are intellectually responsible, and 2) “lab”-related research at my discretion. The former is obvious, this is your thesis related work. The latter usually comes as a part of being on a team. Thus, I might ask you to work with others to hammer out a dataset, or, to cover for a member who is away. You may also be asked to care for another members fly colonies, or perhaps cover a data collection shift. I try to keep these at a minimum, but I believe it is important for all members to contribute to the team. In other words, you will find that there is a duplicity of responsibility, one to yourself and one to the lab community.

Another important general research related note: I do not care what time you arrive, and I do not care what time you leave. I do not care if you work on weekends. I only care if the work is completed in a timely manner. This requires serious time management, self-motivation, and discipline, which will probably be the most difficult and most valuable lessons that you will learn during your time in my lab. My motivation is two-fold: 1) you have chosen a life in which no one looks over your shoulder, so you **MUST** learn to be self-motivated to succeed, and 2) I have just enough time to schedule and motivate myself; there is little time in my life to do that job for you as well. We can discuss strategies but one approach is to make a list of things that you want to complete in a week, and then estimate the time needed to complete the list. My experience is that some weeks will require extra hours, and other weeks will require more extra hours. It’s just the way this job goes. We are not in the 9-to-5 business. More details:

Research credit: Non-volunteers are required to register for at least one research credit per semester. Grade assignments for research credit in the Department of Biology at WVU is Satisfactory/Unsatisfactory. For graduate students I assign this grade based on your performance as outlined in your work-load plan (see below). Simply put, complete your workload plan goals and this will result in a *satisfactory* grade, do not complete your work load plan goals and/or provide poor performance more generally, results in a *unsatisfactory* for your Biol 797 grade. If you are behind on degree milestones and you receive an unsatisfactory grade and this will result in being placed on academic probation.

Work-load plans: Before the beginning of each semester, you will be required to complete a work-load plan to outline your research, teaching, and mentoring goals for the semester (the form can be found on the departmental website. This plan includes target dates for your specified deliverable products. If you are working on a federally funded project, these deliverables and target dates will be in line with the grant requirements. Students oftentimes set themselves up for failure by including overly ambitious goals in their plan, I will meet with you to discuss, modify if necessary, and approve your plan prior to the beginning of each semester. This document will serve as a great resource to gauge your progress. There is also a tendency for students to focus on tasks that are of immediate concern, such as class work, teaching, grading, etc. As a consequence, progress on personal research, which is more flexible, suffers. Avoid this at all costs, as it is detrimental to your success. To circumvent this trap, learn quickly how to manage your own time/calendar so that you use your time as efficiently as possible. I will meet with you for a final assessment at the end of each semester to discuss your progress and assign your performance level (which determines your research credit grade) as described above.

Research assistantships (RA): Most students are supported by Teaching Assistantships (TA). If grant funds are available, teaching releases may be awarded in the form of Research Assistantships to students that are performing at an excellent level. These assistantships are awarded at my discretion. Students that perform at the poorly level while assigned to an RA will be excluded from consideration for any future RAs.

Conferences: are a great way to learn and communicate with like-minded scientists outside of our direct circle, and to form new collaborative relationships that will benefit you in your current and/or future career. The Daly lab attends the Society for Neuroscience (annual), and Neuroethology (every two years) as well as other conference venues. Only students with presentable experimental results will be allowed to attend. While at conferences, you are a representative of my lab, and therefore expected to conduct yourself in a professional manner that reflects positively on our lab, department, and institution (see behavior section below).

Summer expectations and support: Contingent upon the availability of funds, all graduate students that receive a pass for research credit during both the spring and fall semesters will be financially supported during the summer. If your funding comes from a source unrelated to your individual research project, you will still be expected to perform the necessary research to advance the project you are paid to work on, in addition to maintaining forward progress on your own work. Also, you are required by the college to register for research credit every summer during your time as a student at WVU. Therefore, work-load plans and grading rules still apply.

Milestones: Graduate student milestones are outlined in the Department of Biology Graduate Student Handbook which is posted on the department website. Generally speaking, PhD students should strive for the following:

Semester 1: Planning of a small project to introduce you to doing research in the Daly lab. May not end up being part of your dissertation but should be publication quality research. Background research pertaining to the project plus solid experimental design and prep.

Semester 2: Form committee and conduct program of study meeting (POS). Here you will present your project plan for their consideration and input, design your course work plan to align with your future research and career aspirations, and schedule your qualifying exams.

Semester 4-5: Qualifying exams.

Semester 5-7: Proposal defense.

Semester 9-10: Dissertations defense.

See the graduate handbook for MS requirements, as they are in line with my expectations. In addition to the required milestones listed above, you will host at least one committee meeting per year to provide updates on your progress towards a degree.

Thesis expectations: PhD students are expected to complete at least three projects that result in publishable projects to be awarded a degree. These publishable projects will be of the highest quality, both written and experimentally, in order to be included in your dissertation. I, and to some degree, your committee, will hold you to a high standard. MS students are expected to complete at least two publishable projects to obtain a degree.

Laboratory policies:

*Sound* - The lab is generally the “fun” place to be. If you need social time, go to

the lab. You should expect talking, music, intellectual (hopefully) discussion, and collaboration. Sometimes, however, someone in the lab will be testing a new protocol or doing some complicated calculations. Please be respectful of your fellow lab-mates' needs in these instances. If you are the person in need of some momentary silence in the lab, speak up and request it. We are all friends here. If you need a quiet space to study, write, grade, or anything else that is not lab related, you should do so in your office (designated quiet space) or perhaps the laboratory breezeway.

*Lab notebooks* - Lab notebooks will be kept electronically; no exceptions. Paper can be lost or destroyed via spills and fires. Backing up paper copies is laborious. Therefore, all lab members will be provided with an iPad or like device if they do not have a laptop. Any computational device that I assign belongs to the Daly lab and will be equipped for app purchases by me. iPads can be equipped with "Goodnotes" for note-taking purposes. All notebooks should be backed-up to the Daly lab google drive at least once per week. These devices can be taken home with you, if and only if, you have completed a backup of your lab notebook(s) to the Daly google drive account for the day. Otherwise, they must remain in the laboratory. All backups to the lab drive must be in Goodnotes format or like note taking software format. These policies are in line with requirements of any taxpayer funded work, i.e., all research records are owned by the lab (not you) and must be available for immediate review at all times.

Every entry in your lab notebook must include the date. You must be thorough in your note-keeping, i.e., document everything you do (including mistakes!) and every observation you make (hmm...this looks funny). Goodnotes is equipped to embed photos, so feel free to take pictures/videos of observations, etc. but do not forget to take the actual data measures. As University affiliated staff, we have unlimited google drive space. So, DOCUMENT EVERYTHING.

You may use your iPads for numerous other purposes. I suggest organizing your literature and using Goodnotes to make markups and take notes. There are other good apps for this purpose as well. These documents DO NOT have to be backed up to the lab drive before removing an iPad/other device from the lab. The backup rule pertains only to your lab notebook(s). It is a good idea, however, to back up your literature to the lab drive on occasion.

*Data* - Data backup is important for any research, but especially so in groups such as ours where we generate large quantities of data. Although we all would prefer to perform data analysis on our own personal/office computers or laptop, it is a requirement in the Daly lab to backup all raw data in addition to scripts and other types of analyses to the Daly lab google drive. Everyone in the Daly lab will have their own subdirectory therefore, you can access data remotely, anywhere and anytime.

*Cleanliness, organization, and lab maintenance* - We perform molecular biology Experiments within the lab. Cleanliness is paramount. Clean your space before and after every use. Lab clean-up days for shared spaces will be organized regularly and every lab member must participate. Many items (such as pipettes and scales) are shared, so put them back and put them back cleaned or suffer the wrath of the next user who has to search the lab (and waste their time) to find needed equipment and or service it before using. Along that same line of thought, if you use the last of a shared item, it is your

responsibility to replenish (or submit for ordering) that item immediately. There are no lab fairies that show up in the middle of the night to put everything back in order. "I was too busy" is not an excuse. We are all busy.

Our research space is not limited to the lab, however. These rules and expectations apply to our secondary lab spaces, such as the imaging facilities, as well. Wherever you are working, you are responsible for keeping your space neat and clean, removing waste.

*Chemical labeling and disposal* - OSHA requires clear labeling of all chemicals. You should include the complete name (no abbreviations), your initials, and the date. Use your chemicals ONLY. If in doubt, throw it out (following proper disposal guidelines). Nothing ruins an experiment more often than contamination. If you are the first to open a kit, jar, or ampule of any kind, include the date and your initials on the box or bottle. Hazardous chemicals must be disposed of properly, according to the University EH&S guidelines. Please see their website for more information on proper disposal.

*Dishes* - Unless currently staffed for such purposes, all lab members are required to wash their own dishes.

*Ordering* - Supplies can only be ordered by Dr. Daly or a designated postdoc or staff person. It is your responsibility to make sure you have all of the supplies that you need to conduct your experiments. I suggest, during the planning stages of an experiment, that you check on supplies to be sure they are in stock. Ordering will take place on demand but when I have time. Be sure your requests are in when you need it (allowing for shipping time) or your experiment will be delayed. You should email your needed items, including the web link or item number, no later than 2 PM on ordering days.

Lab meetings: Lab meetings serve multiple purposes. They, first and foremost, provide an opportunity for us to relax together and air any needs/problems/concerns in a friendly and accepting environment. Second, they provide a non-threatening venue for you to learn to 1) teach/explain your work to others, 2) eloquently field questions about your work, 3) ask questions with respect, and 4) determine if you are making progress towards your goals. Lab meetings will be scheduled at the beginning of each semester, with every attempt to accommodate lab member's class schedules. We will rotate through 4 different lab meeting formats: 1) general lab meetings; 2) Journal blitz; 3) Journal Club; 4) Data blitz. We will rotate through approximately every 4 weeks Data blitz will consist of 2-4 slide presentation by each lab member on their accomplishments/discoveries/problems since the previous lab meeting and a prospectus on the coming months plans. Lab members are expected to ask questions, so as to provide an opportunity for your lab mates to practice answering them. Participation is key! Journal blitz and club is focused on reading and presenting new literature that is related to ongoing projects in the lab. During these "journal related" lab meetings, you will learn how to critically read and review literature, a skill that will be key to your future success as a scientist. While a blitz presentation will be a single slide (two if needed) the journal club will focus on in-depth review a of a paper. You will be responsible for both. Having said that, you should always be independently reading and reviewing literature related to your work, regardless of what we are doing as a lab. A good rule is to review at least 5 new papers a week (even if you just read the abstract, discussion, and look at the figures).

Individual meetings: In addition to group lab meetings, we will have individual meetings to discuss plans tailored to your specific project and ensure you are on track to meet your goals. Come prepared with all of your questions and concerns. Do not expect me to lead these

meetings. These meetings provide you with an opportunity to pick my brain and ask for advice. I'm not a mind reader, so you must assume the leadership role in these meetings.

On occasion, issues will arise for which you need my input, and it cannot wait until our next individual meeting. In such instances, I urge you to interrupt me in my office. If my door is shut, this indicates that I am tied up. I will open my door when I am available. The one exception is in the case of a true emergency, such as failure of the -80C freezer or some other urgent matter for which I am needed.

Dissemination of information - Under no circumstances should any abstract, poster, manuscript, or any other form of information be published or submitted for publication without my consent. All work that you perform is owned by the Daly lab, and therefore cannot be disseminated without my expressed approval. In addition, I cannot be expected to drop whatever it is that I am doing to review your materials on your schedule. Therefore, posters and poster abstracts (or any other materials with a hard deadline) should be submitted for my consideration at least five days in advance of the submission (or printing) deadline. Also, do not be shocked with the extent of my edits! It is a big part of my job to teach you how to write, and I am *very* thorough. Resist the urge to just accept all of my changes without reviewing them first. You should review each and every one of my edits and attempt to determine *why* I changed it from your version to mine. As long as you do this, you should learn how to perform science writing very quickly.

Authorship: Some tasks that you will perform are not worthy of authorship (you will find yourself mentioned in the acknowledgements section, instead). It will take time for you to discover what types of work constitute authorship. Therefore, never discuss authorship with anyone outside of the lab, but rather, always direct your questions to me. Simple rules of thumb: 1) if you provide data but not sufficient for a figure, or someone else generates the analysis and figures, it is not worthy of a co-authorship. If you generate the data analysis and summary figures for a manuscript, you are considered a co-author. If you are the primary author of the document, you are considered first author. There may be instances where this general rule does not hold but that would be exceptional.

**Teaching**: For those of you that envision a future in academia, remember that you are working towards becoming a teacher/scholar. Teaching others will be fundamentally important (if not the central goal) of your work. This includes formal teaching in the classroom, but perhaps more importantly, teaching in the lab. Therefore, I expect graduate students to become proficient in both of these scholarly settings.

PhD students are required to teach at least two semesters, but you will likely teach more than that. In addition to formal classroom teaching, all graduate students in the Daly lab are expected, at some point, to mentor undergraduate researchers, volunteers, and new graduate students. This gives you the chance to teach new scientists very simple things, such as the proper way to wash dishes, how to use an autoclave, how to make common solutions and other media, etc...But, also how to think like a scientist, form hypotheses, design and conduct experiments, interpret data, and explain their work to others. This will likely be some of the most rewarding teaching that you do (it certainly has been for me!). Note: these students ARE NOT your employees that are there to do your work for you. You are THEIR employee, and your job is to teach them.

**Service:** I encourage you to become actively involved in Department and University service projects. A good place to start is with the BGSA. Not only does service work look good on your CV (hey, you did extra stuff that you didn't have to do because you are a good citizen!), but you seize the opportunity to advocate for yourself and for your fellow graduate students. Be an active participant; don't be a bystander.

**Behavior:** There are a couple of important considerations inherent to your success in the lab: first, I am equally committed to the success of everyone in the lab. This means that I make an effort to treat everyone equitably, not necessarily equally. However, I do not want you to feel as if you are less appreciated than others, and further, I want to ensure that lab members do not harbor resentment toward one another — such a scenario can hurt morale and collaboration within the lab. Therefore, I believe we should value a professional lab atmosphere, which is fundamental to overall lab success. We should always strive to interact with one another in a professional manner — no gossiping, especially the unkind sort; no projecting bad moods on one another; respect healthy colleague-colleague & mentor/boss-advisee/employee boundaries. Remember, as a staff member, you reflect the lab, department, and the university. I take this seriously and expect you to represent us in the most positive light possible.

**Time off/vacations/holidays:** On the happiness front, everyone should take their vacation days during the year. It is required that you communicate with me when you would like to be gone for vacation and for how long, and give me at least 2 weeks' notice for short trips (3-4 days) but a much longer head's up for longer trips (>4 days). I have never vetoed vacation requests, but I reserve the right to do so should they overlap with an all hands on deck or deadline situation.

**Personal considerations:** If you are dealing with a personal problem and may need to have time off to effectively get things under control, my door is always open to you for such discussions. I care about your general overall health and well-being, and I do not wish for your experience here to be marred by personal problems. Be aware, however, that my advice on these fronts will most definitely be flawed! If you are struggling with personal issues, I will point you to the appropriate university-related people that are qualified to help you.

As a university, the academic calendar includes regularly scheduled holidays. I, of course, want you to take time to visit your families, relax, and regroup. You should consider this time, however, as a holiday from your formal course work and teaching. This is not a holiday from your research. For example, you may not take a four-week holiday from your work over the winter break. It is expected that you continue your research on any day in which the university campus is still open. The University is officially closed on select days throughout the year (Christmas Eve, Christmas, MLK day, etc...). Feel free to take these days off if you like. I am also respectful of "days of special concern", marked on the University calendar.