Cornejo/Kelley Lab Mission Statement

To address complex biological questions in an inclusive and supportive environment that cultivates curious, productive, and collaborative scientists.

Graduate and Post-Doctoral Program Expectations[1]

Graduate and post-doctoral work is a mutual investment in the process of learning and producing peer-reviewed science. It is accomplished through the joint efforts of the advisor and the graduate student or post-doc. Like most relationships, it requires hard work and good communication. The following is a list of expectations and responsibilities that are meant to guide your journey.

Basic expectations

- Professionalism and mutual respect –Your job is to produce high-quality science and develop into an independent researcher. My job as a supervisor is to foster successful research and learning outcomes for everyone in the lab and to mentor you as you pass through this stage in your career. We are all colleagues and should be conscientious about our responsibilities to another.
- Communication – Open communication is essential for success. Keeping me in the loop is very important. Let me know early if you have any concerns. In turn, I will do the same for you.
- Commitment – Graduate school and post-doctoral research is hard. I expect you to push yourself to accomplish research goals on time. If you are taking classes, I expect you to do well in your classes. This does not mean I expect you to live an unbalanced life; building in personal time is rejuvenating and necessary.
- Enthusiasm – Research is rewarding and many parts of grad school/postdoc are fun. Step back and remember that we have the incredible privilege of studying what we choose. Make sure you enjoy it!

Expectations of lab members

- Be a good lab citizen.
    - Participate *actively* in lab meetings. Come prepared to contribute to discussions with ideas and questions. Lab meetings are a safe space for the free exchange of ideas, at any stage of a project and no matter how well versed you are in a topic – no grading, no judgment. But this is not the same as coming unprepared.
    - Never make up lab data! No matter what pressure you are feeling, it simply isn't worth it. If you are concerned about integrity in the lab, please bring it to my attention immediately.
    - Take on your fair share of responsibilities for maintaining common lab space and equipment.
    - Promptly report mistakes, problems, or broken equipment. They happen to everyone and we can then try to fix it together.
    - Know the research that is happening in the lab. Ask other lab members about their research and learn about current lab projects.
    - Pitch in to help lab mates when they need it, whether it is a hands-on project or providing constructive feedback on an idea or draft. They will do the same for you.
    - Contribute positively to the social dynamic of the lab. Be present, be engaged, and suggest activities that will help us connect. Enthusiasm is contagious; so is apathy. If you notice any conflict arising in the lab, please bring it to my attention, as you see appropriate.
    - New students should consult with more experienced lab mates for advice and help with navigating their way through graduate school as well as on lab policies. Senior students and postdocs should mentor newer students. Good communication among all lab members is essential.
    - Post in the lab slack workspace (kelley-lab-group.slack.com).
    - Help recruit new lab members. This may be meeting with a prospective, taking them out for meals and outings, and/or corresponding with them electronically. Prospective students and postdocs are much more likely to want to join a lab when they have an opportunity to fully engage with lab members, not just me.

[1] This material has been adapted from Kathleen Kay, Amy Angert, Jenn Williams, Sadie J. Ryan, Jacquelyn Friar and Evelyn Merrill.

- Be engaged in the broader research community of WSU and SBS.
    - Go to the SBS seminar and BioLunch every week.
    - Ask questions.
    - Participate regularly in another weekly discussion group (e.g. reading group, BIOLOGY 589). It is important to engage with diverse perspectives.
    - Consider attending another seminar (SMB, IPN) each week.
    - Try to attend lunch or other meeting with the seminar speaker. Even if the topic seems tangential to you, you never know when and in what context you may meet that person again.

- Maintain regular communication with me.
    - Inform me of your research and course activities, particularly when (or preferably before) you find yourself overwhelmed. I want to help you, but I cannot help solve problems that I am unaware of. Before asking questions or bringing forward a problem, please make the effort to research the topic. This way we can use our time together to discuss various ideas or options.
    - Meet with me regularly (biweekly or weekly). When one or both of us are away, send regular reports by Slack or email.
    - Stop by my office informally to share cool results, report problems, get a signature, etc.
    - Copy me on all written communication with our research collaborators. Also, inform me right away of any event or action that has the potential to cause concern among our collaborators or people outside our research group. You can always report to the Graduate Director or Departmental Director. We also have an anonymous reporting mechanism at https://forms.gle/rq3qt1txQGFvKaq29

- Treat graduate school/postdoctoral research as your full-time job.
    - Successful research starts with self-motivated learning
    - Keep regular hours. You are free to set your hours, but I do expect you to be in during more or less regular business hours so that you can work with and help lab mates.
    - How many hours? This will vary according to other activities and commitments and the fluctuating demands of your project. Hours dedicated to research may be as low as 15- 20 hours/week when taking classes and TAing to well over 40 hours/week when meeting deadlines or in the crunch of a field season or heavy lab/computational work.
    - There are many responsibilities and activities you can and should take part in, but you must **schedule regular time for research** so you continue to make progress. If you wait to do research until you have nothing else on your plate, you will never get to it.
    - **Write early and often**. Set aside your sharpest time of day for daily writing. Aim for at least 30 min/day at every stage of your career. Consider forming a peer support group to help set and enforce weekly writing goals.
    - You are entitled to take regular holidays, winter campus closure, spring break, and 1-2 additional weeks of vacation per year. It is your responsibility to make sure any research needs are covered while you are away or to reschedule your time away accordingly. Anticipated time away for vacation, fieldwork, or conferences should be posted in advance on the lab calendar and discussed with me, prior to booking any trips.

- Use best practices for open, reproducible science.
    - Keep physical lab notebooks for all wetlab and field work. Pages should be numbered and dated. Lab notebooks should stay in the lab (not be taken home). You can also record an overview of computational analyses in your notebook. Field notebooks should be photocopied, scanned, or photographed regularly.
    - Your digital files should be backed up to an external hard drive and to github (if they are of a reasonable size). All raw sequence data should be uploaded to NCBI SRA. Other data types should be uploaded to the appropriate repositories. Ask if you need help setting this up.
    - Data deposition and open access after publication are the norm in this lab. I expect digital copies or archival access of all data with proper written descriptions (metadata). I will not share your unpublished data without your explicit permission.

  - All code should be annotated, version-controlled and archived in GitHub or google drive, prior to publication, after publication all code should be publicly available on GitHub.
  - I will not be able to sign your thesis until the metadata, data, and code files have been provided to me. Exceptions must be agreed upon in writing by all invested parties.
  - All materials (scripts, lab notebooks, etc) created in the lab are the property of the lab.

- Work towards becoming an independent researcher.
  - Time management is vital. Set short- (monthly) and long-term (semester and yearly) goals and outline plans for how to achieve them by breaking them down into daily and weekly tasks. Revisit your goals lists regularly. Be realistic about how many hours/week you can dedicate to your research (put blocks for it on your calendar, alongside all other commitments) and use this to schedule your time. Work hard to meet mutually agreed upon deadlines, even if they are informal.
  - Read and stay abreast of the literature in your area. Expect to be asked questions at your proposal exam and defense on general knowledge in your area, reaching back to seminal papers and books. Find a good way to database and track what you read (e.g. annotated bibliography, Papers, Mendeley, etc). Keep me informed of cool things you find and I'll do the same!
  - Practice giving and receiving constructive criticism. Be open to criticism, offer your opinions, begin developing your reasoning and argument skills. Don't be afraid to respectfully disagree with me or let me know when I am wrong about something.
  - Start practicing the financial aspects of being a PI: Seek out small grants to support your data collection and attendance at conferences. Prepare a budget for your project. Maintain an informal log of expenses and keep within the agreed upon budget.
  - Mentor undergraduate students in research, but focus on providing high quality mentorship for few students rather than running a large team. Consider mentoring promising undergraduates through BIOE183 and a senior thesis *after consulting with me*.
  - Be proactive on paperwork required for your research. Please do not wait until the last minute before submission.
  - Aim to give a presentation (poster or oral) at one conference per year, starting with smaller local meetings and working your way up to national meetings. Funds are limited, so you will need to apply for travel grants, attend local conferences or come to me to discuss other ways to pay for conference travel. The Elling / Higinbotham funds can be used for conference travel. All abstracts on which I am coauthor must be sent to me for review prior to submission. All talks and posters must be vetted in a lab meeting prior to conference attendance. You will also present progress in lab meetings ≥2X per semester.
  - Consider getting involved in outreach and engagement beyond the academic community in some form that you find rewarding.

Grad school parameters

- Be prepared to work hard to finish in a timely manner, 2-3 years for masters and 5-6 years for a PhD.
- In general, 1-2 publications are expected from a M.S, 3+ from a Ph.D. program, and 1-2/year from a Postdoc, depending on the project. I will be unable to sign your thesis until you have submitted at least one chapter to a peer-reviewed journal (M.S. students) or have at least one chapter accepted and another submitted to peer-reviewed journals (Ph.D. students). It is very challenging to prepare papers for submission once you have moved on to a post-doc or other job; this is for everyone's benefit.
- You are responsible for knowing and meeting the department and grad division requirements in a timely manner. Know the graduate forms that need to be filled out and deadlines for submission. Talk to the graduate program coordinator, to your lab mates and other experienced graduate students; consult the SBS Graduate Handbook and website.
- Select a committee in consultation with me and set up yearly committee meetings.
- Aim to take your comprehensive exam by the fall of your second year and advance to candidacy no later than your third year.

- Grad school is hard and inevitably there will be setbacks. You should have back up plans for your thesis chapters, and I will help you make them. Something(s) will fail, but that is ok if you are prepared. Use failures as good learning experiences – they happen to everyone.
- If you have problems or concerns that you feel you can't discuss with me, I strongly encourage you to talk to the graduate program coordinator and/or trusted faculty members. There are additional resources outside the department to which they can point you if necessary.

Responsibilities of the advisor

- Provide a lab environment amenable to learning, open discussion of ideas, and producing credible research without discrimination or harassment.
- Along with your committee, guide you through your graduate studies program including courses and research.
- Meet with you regularly (biweekly or weekly) to discuss your research ideas, results, and progress. I will do my best to provide input and feedback, but I won't know the answer to all questions; you are likely working on new and exciting projects that require new techniques. Seek advice from fellow students, statistical experts, committee members or other faculty as necessary.
- Provide timely and constructive feedback on written research questions, proposals, progress reports, thesis chapters, and publications. **I aim to give feedback within two weeks – that means you should give me your draft more than two weeks prior to a deadline so you have time to incorporate feedback.**
- With your help, provide reasonable resources and financial support to meet mutually agreed upon research objectives. I will not be able to provide financial support beyond the end of departmental, project, or scholarship support. I will do all I can and provide guidance and suggestions, but resources are finite.
- Acknowledge appropriately your contributions to research and other efforts in presentations and publications.
- Notify you in advance of any anticipated, prolonged periods of travel or leave and, in consultation with you, set up structures to support you during my absence (e.g., a faculty mentor on campus, alternate lab meetings).
- Assist you in transitioning to the next stage of your career in a reasonable manner, whether that is academic or non-academic. Some of the main ways I do this:
    - Encouraging and supporting networking opportunities (e.g. conferences and workshops).
    - Submitting oodles of reference letters. Please let me know at least 2 weeks in advance and provide me with an email with the following info:
        - The opportunity for which you are applying
        - The due date
        - Name (if known), institution, and address of the person/committee to whom the letter should be addressed (even if the letter is submitted online, I still write a formal business letter with an addressee).
        - Instructions on how to submit the letter (email address, physical address, etc)
        - Any instructions on what the letter should discuss.
        - Send a reminder 3-5 days before the deadline.
    - Providing feedback on job applications. Please allow at least two weeks for review.
    - Providing advice and consultation by phone or email.
    - Treat all students equally and fairly
    - Guide you through paper submission and review

Signed _____Date_____

Signed advisor _____Date_____