

My Mentoring Philosophy:

Expectations for My Trainees and What My Trainees Can Expect From Me

The broad goals of my research program

My job as a professor is to write grants to fund research that will make important, tangible contributions to science, the academic community, and society as a whole. As part of my lab, you will be helping me execute this research. The ultimate goal of our research endeavors include publication of this research in scientific journals and dissemination of the knowledge we gain to advance the field. It is important to disseminate our research findings to not only our scientific peers, but also the general public. Thus, I also value outreach and informal science education, both in the classroom and while engaging with the public. It is imperative that we practice good scientific method, as well as conduct ourselves ethically and professionally.

What I expect from my mentees

An important part of my job as a professor is to provide training and advising to undergraduate researchers, graduate students, and post-doctoral researchers in my group. I will contribute to your professional development and progress toward your professional aspirations. I will help you set goals and hopefully achieve them. However, I cannot do the work for you. In general I expect you to:

1. *Take ownership over your educational and research experience*

- **Recognize that you are primarily responsible for the successful completion of your degree or your research here with me.** You should be committed to your work in the classroom, the laboratory, or the field. You should maintain a high level of professionalism, self-motivation, engagement, scientific curiosity, and ethical standards.
- **Ensure you meet regularly with me to provide me updates on the progress of your results, activities, and experiments.** During these meetings, make sure you communicate clearly any new ideas you have about your work and the challenges you are facing. Remember that I cannot address or advise on issues that you do not bring to my attention.
- **Know the policies, deadlines, and requirements of the graduate program, the graduate school, and the university.** Comply with all institutional policies, which include academic program deadlines, laboratory practices, and rules related to chemical safety, biosafety, and fieldwork.
- **Actively develop your professional network.** Cornell University has many resources in place to support the professional development you think you might need for your future career. I expect you to take full advantage of these resources, since part of becoming a successful scientist involves more than just performing research. You are expected to make continued progress in your development as a teacher, as a representative of our lab group, the university, and your discipline when you address public audiences, with respect to your networking skills, and as an engaged member of broader professional organizations. I expect you to attend departmental seminars, to engage with the public when possible about your research, and to gain some teaching experience during your time here. I also expect you to attend conferences and workshops within your field and to become a member of one or

more professional societies such as the Ecological Society of America, the Entomological Society of America, The American Society of Tropical Medicine and Hygiene, etc.

2. *You will be a team player*

- **Attend and actively participate in all group meetings, as well as seminars that are part of your discipline or educational program.** Participation in group meetings does not only mean presenting your own work, but by providing support to others in the lab through shared insight. In lab meetings you will refrain from using your computer, cell phone, or iPads as it is disrespectful to the larger group to have your attention distracted by personal devices. Please do your part to create a climate of engagement and mutual respect.
- **Strive to be the best lab citizen.** Take part fully in shared laboratory responsibilities and use laboratory resources carefully and within reason. Maintain a safe and clean laboratory space. Be respectful to, tolerant of, and work collegially with all laboratory colleagues. Please respect individual differences in values, personalities, working styles, and theoretical perspectives.
- **Be a good collaborator.** Engage in collaboration within and beyond our lab group. Healthy collaborations demand effective and frequent communication, mutual respect, trust, and shared goals. Effective collaboration is a very important component of our lab mission as well as in doing effective science.
- **Leave no trace.** As part of our collaboration with other research groups, you will often be using equipment that does not belong to our lab. I ask that you respect this equipment and treat it even more carefully than our own equipment. Always return it as soon as possible in the same condition as you received it. If something breaks, tell me straight away so we can arrange to fix or replace it. Mistakes happen, so do not panic over broken equipment. But it is not acceptable to return something broken or damaged without taking steps necessary to fix it.
- **Acknowledge efforts of collaborators.** Appreciate and recognize others' contributions to your work.

3. *You will develop strong research skills*

- **You are at a world class institution – take advantage of opportunities to develop and refine your research skills.** I expect you to learn how to plan, design, and conduct high quality scientific research.
- **Challenge yourself by presenting your work at meetings and seminars as early as you can and by preparing scientific articles that present your work effectively to others in the field.** The “currency” in science is peer reviewed, scientific papers – thus they drive a lot of what we do. Further, because our lab is run on tax payer money, we have an obligation to complete and disseminate our findings. I will push you to publish throughout your training program, not only at the end. Student's pursuing a master's degree will be expected to author or make major contributions to at least one journal paper submission. PhD students will be expected to be the lead author on at least two journal paper submissions, but preferably three or four.

- **Keep up with the literature so you can help guide your research.** Block at least 1 hr / week to peruse the table of contents of top journals in your discipline or to do a literature search. Participate actively in journal clubs, or better yet take the lead in organizing one. And, read, read, read. Read within your research focus to understand what has been done and to identify relevant and interesting questions, read more broadly to foster creativity in your thinking about your own field, and also read to satisfy your curiosity. Saving time to read and think can be just as valuable, if not more so, as doing. Your career will not only be defined by the execution of your research, but more so by your ability to think and your creativity in the pursuit of those research questions. To be a nimble thinker, you need a solid and varied knowledge base.
- **Maintain detailed, organized, and accurate laboratory / field records.** Be aware that your notes, records, and all tangible research data are my property as the lab director. When you leave the lab, I encourage you to take copies of your data with you, but one full set of all data must stay in the lab with appropriate and accessible documentation. We have a shared folder on Google Drive where protocols, data, analysis, and any presentations, posters, and manuscripts can be uploaded throughout your time here.
- **Be responsive to advice and constructive criticism.** The feedback you get from me, your colleagues, your committee members, reviewers, and your course instructors is intended to improve your scientific work. Welcome it! Even though it may at times be hard to hear.

4. *You will work to meet deadlines*

- **Strive to meet deadlines: this will be the only way you manage your progress.** Deadlines can be managed in several ways, but I expect you to do your best to maintain these goals. We will establish mutually agreed upon deadlines for each phase of your work during one-on-one meetings at the beginning of each term. As long as you are meeting expectations, you can largely set your own schedule. However, it is your responsibility to talk with me if you are having difficulty completing your work. I will consider your progress unsatisfactory if I need to follow up with you about completion of your lab or coursework.
- **Be mindful of the constraints on my time.** I have to manage multiple projects in the group as well as outside of the group, take part in many administrative tasks to ensure the lab is equipped, funded, and in compliance to support lab members' research needs, travel to actively promote our research, actively contribute to teaching multiple university courses, and I have to sit on various departmental / university level committees as general service. When we set a deadline, I will block off time to read and respond to your work. If I do not receive your materials, I will move your project to the end of my queue. Allow a minimum of 1 week prior to submission deadlines for me to read and respond to short materials, such as conference abstracts, looking over data analysis, etc. Please give me 2 weeks to work on manuscripts or grant proposals. Do not assume I can read materials within a day or two, especially when I am traveling.

5. *You will communicate clearly*

- **Remember that all of us are “new” at various points in our career.** If you feel uncertain, overwhelmed, or want additional support please overtly ask for it. I have been there and understand. I welcome these conversations and view them as necessary.
- **Let me know the style of communication or schedule of meetings that you prefer.** If there is something about my mentoring style that is proving difficult for you, please tell me so that you give me an opportunity to find an approach that works for you. No single style works for everyone; no one style is expected to work all of the time. Do not cancel meetings with me if you feel that you have not made adequate progress on your research; these might be the most critical times to meet with me.
- **Be prompt.** Respond promptly to emails (in most cases 48 hr) to emails from anyone in the group and show up on time and prepared for meetings. If you need time to gather information in response to an email, please acknowledge receipt of the message and indicate when you will be able to provide the requested information.
- **Discuss policies of work hours, sick leave, and vacation with me directly.** Consult with me and notify fellow lab members in advance of any planned absences. I believe that work-life balance and vacation time are essential for creative thinking and good health and encourage you to take regular vacations. Cornell has a vacation policy for graduate students of 10 business days plus the 11 days that are official holidays (week between Christmas and New Year, MLK day, Memorial Day, Labor Day, etc.). However, please clear travel plans with me in advance. I generally am very flexible about vacation and personal leave. As long as you are productive and meeting expectations you can take the time you feel that you need. However, be aware that there will be times (early in your training, when you are balancing course work, or during a field season or a long experiment) when more effort will be needed to devote to work and it may not be ideal to schedule time away.
- **Discuss policy on authorship before beginning any projects and attendance at professional meetings with me to ensure that we are in agreement.** I expect you to submit relevant research results in a timely manner. Barring unusual circumstances, it is my policy that students and post-docs are first author on all work for which they took the lead on data collection and preparation of the initial draft of the manuscript. If you envision yourself continuing on in science and the field of research for which you publish in during your training with me, then it is my policy that first authors can also be corresponding authors.
- **Help other students with their projects and mentor / train other students.** This is a valuable experience! Undergraduates working in the lab will typically be assigned an onsite research mentor (you!) and can provide valuable assistance to your projects as well as give you experience in the mentoring role. Further, undergraduates should be encouraged to contribute to the writing of manuscripts. If you wish to add other individuals as authors to your papers, please discuss this with me early on and before discussing the situation with the other potential coauthors.

What you should expect from me

- **I will work tirelessly for the good of the lab group.** The success of every member of our group is my top priority, no matter their personal strengths and weaknesses, or career goals.
- **I will be available for regular, weekly meetings and informal conversations.** My busy schedule requires that we plan in advance for meetings to discuss your research and any professional or personal concerns you may have. That being said, if my lights are on in my office my door is open, so feel free to drop in and discuss business. But, please keep in mind that I am often running to teach a class, faculty meetings, or other on campus obligations and may have limited time.
- **I will help you navigate your graduate program of study or the professional development needed for the next stage in your career.** As stated previously, you are responsible for keeping up with deadlines and being knowledgeable about requirements for your specific program. However, I am available to help you interpret these requirements, select appropriate coursework, and select committee members for your oral exams and your dissertation. I am also willing to help find opportunities for professional development that I may not be able to provide to help facilitate entry into a given career outside of academia.
- **I will discuss data ownership and authorship policies regarding papers with you.** These can create unnecessary conflict within the lab and among collaborators. It is important that we communicate openly and regularly about them. Do not hesitate to voice concerns when you have them.
- **I will be your advocate.** If you have a problem, come and see me. I will do my best to help you solve it.
- **I am committed to mentoring you, even after you leave my lab.** I am committed to your education and training while in my lab, and to advising and guiding your career development – to the degree you wish – long after you leave. I will provide honest letters of evaluation for you when you request them.
- **I will lead by example.** I will demonstrate and facilitate your training in complementary skills needed to be a successful scientist, such as oral and written communication, grant writing, lab management, mentoring, and scientific professionalism. I will also encourage you to seek opportunities in teaching, even if not required for your degree program. I will also strongly encourage you to gain practice in mentoring undergraduate students, and to seek formal training through on campus mentoring workshops.
- **I will encourage you to attend scientific / professional meetings and will make an effort to fund such activities.** I will not be able to cover all requests, but you can generally expect to attend at least one major conference per year, when you have material to present. Please use conferences as an opportunity to further your education, and not as a vacation. If you register for a conference, I expect you to attend the scientific sessions and participate in conference activities during the time you are there. Travel fellowships are available through the department and the university if grant money is not available. I will help you identify those opportunities.
- **I will strive to be supportive, equitable, accessible, encouraging, and respectful. I will try my best to understand your unique situation and mentor you accordingly.** I am mindful that each student comes from a different background and has different professional goals. It will help if you keep me informed about your experiences and remember that graduate school is a job with

very high expectations. I view my role as fostering your professional confidence and encouraging your critical thinking, curiosity, skepticism, and creativity. If my attempts to do this are not effective for you, I am open to talking with you about other ways to achieve these goals.

Yearly Evaluation

Each year we will sit down to discuss progress and goals. At that time, you should be sure to tell me if you are unhappy with any aspect of your experience as a graduate student here. Remember that I am your advocate, as well as your adviser. I will be able to help you with any problems you have with other students, professors, or staff.

Similarly, we should discuss any concerns you have with me with respect to my role as a mentor. If you feel that you need more guidance, tell me. If you feel that I am interfering too much with your work, tell me. If you would like to meet with me more often, tell me. At the same time, I will tell you if I am satisfied with your progress, and if I think you are on track to graduate by your target date. It will be my responsibility to explain to you any deficiencies, so that you can take steps to fix them. This will be a good time for us to take care of any issues before they become major problems.