

Mentoring Compact - Gladfelter Lab

Development as a scientist:

- I expect to support you as needed to develop as an independent critical scientist
- I expect you will advocate for support from me in areas you need support (ie experimental design, writing, literature reading etc...)

Productivity:

- Experiments will be analyzed in a timely manner-ideally within the week of when an experiment is performed.
- Work will be performed efficiently and in a focused manner.

Writing:

- Papers will be first drafted by student or postdoc. I will provide feedback within two weeks of receiving a draft.
- I will offer opportunities to write reviews and review papers.

Deadlines:

- For abstracts and posters for meetings, I need to read your work before it is submitted or brought to a meeting. I need at least one week to review content.
- For letters of recommendation, I need two weeks advanced warning.

Intellectual autonomy:

- Lab member will practice designing own experiments with input from me and the group. Challenge oneself to build models and interpret data as it is produced.
- I expect resourcefulness in identifying equipment, reagents and analysis software needed for project completion.

Reading the literature:

- Develop a reading habit and plan for keeping up with the literature. Set-up Pubmed searches and eTOCs for key journals.
- I expect you to keep abreast of the literature relevant to your project and to read widely as well.

Work ethic:

- Success in sciences requires a major time dedication that will require working long days and nights or else being highly focused and efficient in a standard workday.
- Although I am fine with flexibility in working hours, I expect some overlap in the 10am-5pm time frame and for students and postdocs expect some work on weekends or evenings to really move at a competitive pace.

Integrity:

- Experimental details need to be written down so that someone can reproduce what you have done.

- When relevant, score data blinded. Organize spreadsheets so completely clear what each column houses and what each calculation is.

Initiative:

- I expect you to want to know the answer to your experiments and timely analysis of data.
- I hope you are excited to do experiments and if you are feeling unmotivated, please come talk to me about why you are stuck. •If you decide not to do experiments or analysis that we discuss, communicate with me why you aren't doing it.

Communication:

- I expect a combination of informal and formal meetings. I am always willing to meet with you. If you need in depth feedback on ideas, schedule a meeting. Otherwise, try to grab me for a short meeting or pop in my office.
- I expect you to keep me updated on a daily to every few days basis on the latest results, challenges, attempts.

Discussion of data:

- When we are meeting to discuss data, come prepared with the necessary files, results, primary data already loaded.
- I like lists of summarized results to guide our discussions.

Project planning and time management:

- I expect you to plan ahead to do experiments in as efficient a manner as possible. I am willing to help in time management and if I am concerned about productivity, I may ask you to send me weekly summaries and planning documents for the week ahead.
- Your work is supported by public tax payer money, I expect time and resources to be used wisely.

Collegiality and team work:

- Our lab is a team and I expect people to help each other with learning techniques, troubleshooting, navigating new experiences, editing writing and interpreting data. Share your ideas and skills with everyone in the group.
- If there is any cause for concern or discomfort in the group, come to me immediately.

Professional development:

- I will support your career goals both when you are in the lab and beyond.
- I will meet anytime to help with career development or find other resources.

What expectations do you have for me that aren't covered here?

What expectations do you have for yourself that I haven't covered here?

The Willett lab compact was adapted from that of Dr. Trina McMahon, University of Wisconsin-Madison

MENTOR-MENTEE COMPACT

THE BROAD GOALS OF MY RESEARCH PROGRAM

The goals of my research program are to advance our understanding of the biological world in measurable ways, to help develop future scientists, and to help others gain an appreciation of the scientific process. As a graduate student your primary goal will be to develop biological questions and conduct research to answer these questions. During this process it is imperative that we follow good scientific methods and conduct ourselves in an ethical way. We must always keep in mind that the ultimate goal of our research is publication in scientific journals. Dissemination of the knowledge we gain is critical to the advancement of our field. I also value outreach and informal science education, both in the classroom and while engaging with the public. I expect you to participate in this component of our lab mission while you are part of the lab group.

WHAT I EXPECT FROM YOU

A significant part of my job as a professor is to train and advise students. I must contribute to your professional development and progress in your degree. I will help you set goals and hopefully achieve them. However, I cannot do the work for you. In general, I expect you to:

- Learn how to plan, design, and conduct high quality scientific research
- Learn how to present and document your scientific findings
- Be honest, ethical, and enthusiastic
- Be engaged within the research group
- Treat your lab mates, lab funds, equipment, and animals with respect
- Take advantage of professional development opportunities
- Obtain your degree
- Work hard – don't give up!

☉ *Developing strong research skills*

✓ **Take advantage of your opportunity to work at a world-class university by developing and refining stellar research skills.** I expect that you will 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 effectively present your work to others in the field.** The 'currency' in science is published papers, they drive a lot of what we do and because our lab is supported by taxpayer dollars we have an obligation to complete and disseminate our findings. I will push you to publish your research as you move through your training program, not only at the end. Students pursuing a doctoral degree will be expected to develop at least three publishable research chapters for their dissertation.

✓ **Keep up with the literature and attend seminars so that you can develop and expand your research.** Block out time each week to peruse current tables of contents for journals or do literature searches. Participate in journal clubs. You could even help organize one. You should plan on attending the weekly lunch bunch seminars and the departmental seminar as much as possible as well.

✓ **Maintain detailed, organized, and accurate laboratory records.** Keeping accurate laboratory records of your work is key for making future progress on your results (by you or someone else in the lab). The level of detail should be sufficient that others can reconstruct what you have done. 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. Regularly backup your computer data to the Bioark server.

✓ **Be responsive to advice and constructive criticism.** The feedback you get from me, your colleagues, your committee members, and your course instructors is intended to improve your scientific work.

☉ *Taking ownership over your educational experience*

✓ **Acknowledge that you have the primary responsibility for the successful completion of your degree.** This includes commitment to your work in classrooms and the laboratory. You should maintain a high level of professionalism, self-motivation, engagement, scientific curiosity, and ethical standards.

✓ **Ensure that you meet regularly with me and provide me with updates on the progress and results of your activities and experiments.** Make sure that you also use this time to communicate new ideas that you have about your work and challenges that you are facing. Remember: I cannot address or advise about issues that you do not bring to my attention.

✓ **Be knowledgeable of the policies, deadlines, and requirements of the graduate program, the graduate school, and the university.** Comply with all institutional policies, including academic program milestones, laboratory practices, and rules related to chemical safety, biosafety, and fieldwork.

✓ **Actively cultivate your professional development.** Take full advantage of the resources on campus for professional development (such as programs offered through TIBBS), since part of becoming a successful engineer or scientist involves more than just doing academic research. Take advantage of opportunities to progress in your development as a teacher, as an ambassador to the general

public representing the University and your discipline, with respect to your networking skills, and as an engaged member of broader professional organizations. Attendance at conferences and workshops will also provide professional development opportunities. When you attend a conference, I expect you to seek out these opportunities to make the most of your attendance. It would be good to become a member of one or more professional societies such as the Society for the Study of Evolution.

☉ **Be a team player**

✓ **Attend and actively participate in all group meetings, as well as seminars that are part of your educational program.** Participation in group meetings does not mean only presenting your own work, but providing support to others in the lab through shared insight. Do your part to create a climate of engagement and mutual respect by contributing and not being distracted (e.g. checking your electronic devices during meetings).

✓ **Strive to be the very best lab citizen.** Take part in shared laboratory responsibilities and use laboratory resources carefully and frugally. Maintain a safe and clean laboratory space where data and research participant confidentiality are protected. Be respectful, tolerant of, and work collegially with all laboratory colleagues: respect individual differences in values, personalities, work styles, and theoretical perspectives.

✓ **Be a good collaborator.** Engage in collaborations within and beyond our lab group. Collaborations are more than just publishing papers together. They demand effective and frequent communication, mutual respect, trust, and shared goals. Effective collaboration is an extremely important component of the mission of our lab.

✓ **Keep up the lab environment.** In addition to helping to keep the lab environment clean, take responsibility for group tasks that you contribute to such as scheduling hazardous waste pickup, disposing of broken glass waste, making sure washing is done and put away. If you notice something around the lab that needs to be ordered either go ahead and do that or let me know about it. If something breaks, tell me right away so that we can arrange to fix or replace it. Don't panic over broken equipment. Mistakes happen. But it is not acceptable to return something broken or damaged without taking the steps necessary to fix it.

✓ **Lab safety is the responsibility of everyone.** Maintaining a safe laboratory environment is a crucial task so we must make sure that we are following all safety procedures particularly when dealing with hazardous chemicals. Help to keep your training up to date and bring problems that you see with lab safety to my attention.

✓ **Acknowledge the efforts of collaborators.** This includes other members of the lab as well as others in the department or outside of it.

☉ **Strive to meet deadlines**

✓ **Strive to meet deadlines: this is the only way to manage your progress.** Deadlines can be managed in a number of ways, but I expect you to work your best to maintain these goals. We will establish mutually agreed upon deadlines for each phase of your work during one-on-one meetings. For graduate students, there is to be a balance between time spent in class and time spent on research and perhaps on outreach or teaching (but research should take the highest priority in general). As long as you are meeting expectations, you can largely set your own schedule. It is your responsibility to talk with me if you are having difficulty completing your work and 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.** When we set a deadline, I will block off time to read and respond to your work. Allow adequate time prior to submission deadlines for me to read and respond to short materials such as conference abstracts, manuscripts or grant proposals. Please do not assume I can always read materials within a day or two, especially when I am traveling.

☉ **Communicate clearly**

✓ **Remember that all of us are "new" at various points in our careers.** If you feel uncertain, overwhelmed, or want additional support, please overtly ask for it. 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 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 a mentor.

✓ **Be prompt.** Respond promptly (in most cases, within 48 hours) to emails from anyone in our lab 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 on work hours, sick leave and vacation with me directly.** Consult with me and notify fellow lab members in advance of any planned absences. Graduate students can often expect to work at least 40 hours per week in the lab and teaching. During breaks or the summer I would ask that you discuss your travel plans with me ahead of time especially for absences of more than a week. I believe that work-life balance and vacation time are essential for creative thinking and good health and encourage you to take regular vacations.

✓ **Discuss policies on authorship and attendance at professional meetings with me before beginning any projects 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 are first-author on all work for which they took the lead on data collection and preparation of the initial draft of the manuscript. I am also happy to discuss whether my contributions are sufficiently great on a project to warrant authorship (i.e. I don't have a policy that all papers from my lab group will have my name on them necessarily).

✓ **Help other students with their projects and mentor/train other students.** This is a valuable experience! Undergraduates working in the lab 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 potential co-authors.

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 meeting and informal conversations.** My schedule requires that we plan in advance for meetings to discuss your research and any professional or personal concerns you have. Although I will try to be available as much as possible for “drop in business”, keep in mind that I am often running to teach a class or to a faculty meeting and can have limited time.

✓ **I will help you navigate your graduate program of study.** As stated above, you are responsible for keeping up with deadlines and being knowledgeable about requirements for your specific program. However, I am available to help interpret these requirements, select appropriate coursework, and select committee members for your oral exams.

✓ **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 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 you are 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 and facilitate your training in complementary skills needed to be a successful scientist, such as oral and written communication skills, grant writing, lab management, mentoring, and scientific professionalism.** I will encourage you to seek opportunities in teaching and outreach but try to help you balance these aspects with your research efforts. I will also strongly encourage you to gain practice in mentoring undergraduate and/or high school students.

✓ **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 and I have funding available. I am also happy to provide support for travel to local meetings (such as SEEPEG) and training workshops. 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. I will help you identify and apply for external funding opportunities as well.

✓ **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 in formed 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, 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. This can be an opportunity to be forward-looking and to facilitate this we will make use of individual development plans. You should put some time before this meeting into thinking about what you are hoping to get done during the year, how this fits in your plans to complete your thesis, and more broadly how this fits into where you see yourself going after the completion of your PhD.

In addition to this forward-looking aspect, this time could also be useful for reflecting on factors that have impeded your progress in the past towards reaching previously set goals. For me any input on how I could help you in circumventing these impediments would be very welcome. Additionally, during this or any other meetings you should remember 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 advisor. I will be able to help you with any problems you might have with other students, professors, or staff.

Similarly, we should discuss any concerns that you have with respect to my role as your advisor. 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.