Expectations within the Leja Group

Preamble

This document contains my expectations for students/postdocs and for myself in the context of our research group. There is no one correct way to be a successful student/postdoc, and my opinions are strongly biased by my own career and experiences. I share these in part so that we can be on the same page regarding expectations. Below is an incomplete list, closely modeled from a similar document by my previous mentor, Charlie Conroy; suggestions are most welcome. The intention of sharing this list is not to add additional stress and anxiety but instead to ensure that you are well-equipped to succeed.

I suspect that most or all of you will approach the text below from the perspective of the mentee. However, many of you are already, or will soon be mentoring others, and so I'd encourage you to also consider the list below from the perspective of a mentor.

Best,
Joel

Responsibilities and expectations of the advisor/mentor

1. To support the development of students/postdoc career paths. This includes both narrow mentoring related to specific academic issues, course selection, research topics, professional development, etc., and broader mentoring related to career choices, work-life balance, etc. It is the advisors responsibility to assist in the development connections with other senior scientists who can ultimately serve as references and additional sources of mentorship for the student/postdoc.

2. To offer research projects that both develop specific technical skills and set students on a broad path of research that will remain fruitful for many years.

3. To ensure a welcoming, inclusive environment in which everyone feels comfortable engaging with a diverse array of scientific topics, challenging others, and being challenged themselves.

4. To recognize the mentee's strengths and weaknesses and adapt the mentoring strategy to suit the mentee.

5. To provide constructive and timely feedback both on the progress of the past week / month and, several times a year, on the overall status and direction of the thesis / postdoctoral appointment.

6. To be available as someone to talk with confidentially in case of bullying, harassment, or difficult social issues. The advisor should also ensure that the student/postdoc has an external mentor, outside of their primary research group, in case there are issues that cannot be brought up with the primary advisor.

Responsibilities and expectations of the student/postdoc

1. Take ownership of your research. It is your project, and ultimately yours will be the first name on the paper. Make sure you understand the project inside and out, how it fits into the larger picture, etc. Remember that at the end of the day you will be judged (academically) on the quality and quantity of your research, as expressed through papers, presentations, and person-to- person interactions.

2. (This is primarily relevant for graduate students:) Expectations for self-guided research increase with time in graduate school. By the last year you should be taking strong control of your research program, for example deciding which projects to pursue, when a project/paper is done, etc.

3. Productivity should be measured on a $\sim$1-month timescale. It is absolutely OK to be unproductive for a few weeks (whether because of course work, an illness, vacation, travel, debugging, etc.). If you feel like you are not making progress on a month-long timescale, it is your responsibility to bring this up with me so that we can develop more effective work habits.

4. Come prepared to meetings. In most cases this means, in one-on-one meetings, coming to the meeting on time and prepared to present/discuss progress, questions, etc. Condense things into just a few plots, and remember that I have not been in your head for the past week, so I wont be able to dive into the middle of your thought process.

5. Ask questions. This is by far the most effective way to learn. Do not be afraid to ask the simple questions. Often those end up being the most penetrating and insightful.

6. Attend talks, at least 1 per week. Over the course of 5-6 years this is a very effective way to gain exposure to a wide range of research, to learn how to give effective talks, etc. Meet with visitors, as this is a good way to learn how to communicate one-on-one, to practice how you describe your research, and to potentially meet future collaborators, colleagues, employers, etc. Although it might not seem so when you are young, its a small field, and it wont take long to get to know a significant fraction of people in your sub-field if you are proactive about meeting people.

7. Read the literature. You should be well read in your research area, including keeping up with new papers and, over time, reading the older literature. You should also keep up, at a lower rate, with interesting articles either on the periphery or entirely outside of your research area. This is one way in which your research direction can evolve over time.

Finally, please recognize that no one will care as much about your career and future as you do. In any healthy advisor-advisee relationship your advisor will be looking out for you, and I personally do work hard to have your best interests in mind. But you need to be your own best advocate, as you care more than any other person about your career.