

Expectations for PhD students

Prof James Friend: MADLab UC San Diego 2015

The Basics

1. *Think*. In research, doing is best done when you've first thought about what you will do.
2. Be impeccable with your word.¹ *Speak with integrity. Say only what you mean. Avoid using the word to speak against yourself or to gossip about others.*
3. Don't take anything personally. Nothing others do is because of you. What others say and do is a projection of their own reality, their own dream.
4. Don't make assumptions. Find the courage to ask questions and to express what you really want. Communicate with others—including your supervisor—as clearly as you can to avoid misunderstandings, sadness and drama.
5. Always do your best. Your best is going to change from moment to moment; it will be different when you are healthy as opposed to sick. Under any circumstance, simply do your best, and you will avoid self-judgment, self-abuse and regret.
6. Honesty and ethical behavior is an absolute expectation: understand the concept of honesty with respect to the intellectual efforts of oneself, others, and the research community. In doubt? Ask.

Misconceptions

1. The PhD is not structured—there isn't someone to give you work to do. You need to develop the ability to conduct your own research from your own ideas and teach others. You must come to lead your own PhD, no one will do it for you.
2. The majority of your work won't be at the lab bench. A lot of time is spent *thinking*, reading, talking with and helping others, helping the lab group, and communicating the results of your work. For example, networking is important. See Phil Agre's detailed page [here](#).
3. The PhD is not something to be pursued lightly: it is not an alternative to a regular job. There are sacrifices in having such a degree, along with the advantages. Probably the most significant sacrifice is a future of hard work. If you have *grit*, like overcoming setback, tend to obsess with an idea or project, like working hard, and keep your goals and meet them in the face of adversity, then the PhD and this career is for you.

Common courtesies and how the lab works

4. Your supervisor is human and will make mistakes.
5. We are a team: You are expected to contribute to the central mission of the research group in conducting internationally competitive research. Support your fellow students and the others in the team and they will do the same for you.
6. Graduate students should inform their supervisor of their departure and expected date of return. Understand that the supervisor is responsible for your progress and the progress of the research, and that taking leave may not always be possible. Extended leave may cause candidature problems.
7. Your supervisor is extremely busy trying to keep the funds coming in, in coming up with new ideas, and in taking care of problems so that you won't have to deal with them. While he wants to see you, it may be that he will have to set times to do so. Likewise, there may be unavoidable delays in feedback.
8. Your supervisor will be frank with you on his assessment of your progress. He does this to avoid misunderstandings. See *the basics* in how to take his advice.
9. You will have co-authorship on publications and patents (refer to Intellectual Property policy) when you have made significant contributions to the invention (for patents), research or write-up of a manuscript, and first authorship is yours when it is your ideas and work that forms the majority of a manuscript.
10. If you contribute to a manuscript, speak up at meetings that you have done so. It is your responsibility to voice your views about this. In this group, your supervisor has final say, and being a member of the group implies acceptance of this.
11. Assignment of your IP commercialization rights to the university is expected as a condition of joining the group. It makes it easier for all and is almost certainly in your interest. Failing to do so creates unnecessary drama, little more. If this isn't acceptable, please join another group.
12. You're expected to attend conferences, nationally and internationally, representing the group as a leader in your research area, upon the completion of work sufficient for a journal manuscript in the area as judged by your supervisor. Abstracts are to be pre-approved by the supervisor.
13. Invention related to IP has a very specific meaning. Working on a project and inventing commercially relevant ideas are two different things. Remember that this lab will always sacrifice IP in favor of scientific research output. This is in your interest as you pursue the PhD. If you want to make money, the PhD is not for you.
14. Weekly meetings with your supervisor are typical for our group to see how things are going. Make sure you keep the meeting to the point. Always bring your lab notebook.
15. Lab notebooks are to be used at all times. What at first is a hassle will save your PhD (and someday your career).
16. Your supervisor is enthusiastic and loves his job. He will give you many ideas. Some are useful. It is up to you to glean from those ideas ones that work for you and the problem you are trying to solve.
17. Failure is expected. Mistakes are expected. Broken equipment and experiments are expected. Letting us know even the bad news is always expected. After all, it's *research*.
18. Participate. Get involved—the team is among the best in the world. This is your chance to put in and get out all you can from it.
19. There will be many difficulties and problems. You must remain focused on how to get things done in the face of adversity.
20. We have two aims: internationally leading research, and your success. Everything we do is to continually strive toward those aims. With you our aim is to produce a person capable of performing independent research of internationally competitive quality.

¹ Don Miguel Ángel Ruiz.