

Expectations for Ph.d.-students

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A Ph.D. is NOT an alternative to a regular day job. A Ph.D. comes with sacrifices and advantages. The big sacrifice is hard work. Before embarking on a Ph.D. ask yourself: Are you gritty? Do you tend to recover fast from failure? Tend to obsess over projects? Aim at your goals independent of circumstances? If the answer is yes, then a Ph.D. is right for you.

The advantages of a Ph.D. are that you are your own boss, contribute to a field you are interested in, have a guaranteed income for three years, travel for work, get a global network, and boost your CV. In addition, PhDs statistically earn more and have lower unemployment rates than non-PhDs.

Misconceptions about doing a PhD

1. Lead your own PhD. There is no master plan. No structure. It is a misconception that someone else leads your projects and must tell you what to do. There is no one else that knows how to do it. Try it out! Fail! Correct it! Try again!
2. Your thesis work is NOT just lab work. The goal of your Ph.D. is to find answers to specific questions. Therefore, you should spend a lot of time *thinking* about your research questions, read, discuss to find different ways to address them, communicate your results.

Basic expectations

3. Speak with morality. Avoid speaking badly of yourself or others.
4. Be solution oriented! Avoid complaining. Think of solutions to the issues that dissatisfy you. Instead of complaining and being hostile, state the problem and offer a solution.
5. Don't take what others say or do personally. What others say or do speaks of their situation, not yours.
6. Communicate clearly. Don't assume. Ask questions. Express what you actually want, so misunderstandings are avoided.
7. Be honest and ethical. You are required to maintain ethical standards in collecting analyzing and presenting research data. This is an ABSOLUTE requirement.

What you should expect from supervision

8. Expect that a human supervisor will make mistakes. Always think for yourself and ask when in doubt.
9. Your supervisor cannot always meet with you! She is busy trying to keep the funds coming in, writing, reviewing, coming up with new ideas, having faculty meetings, teaching and more. Disturbances leads to her getting ineffective results. Ask for appointments ahead of time and keep the times of the appointments.
10. Because of too many commitments, your supervisor may occasionally give inevitably delayed feedback.
11. Your supervisor is not doing the work for you. Her role is to: mentor you, train some aspects of the job (some you'll have to learn by yourself or from others), provide feedback, help you get on track when things go wrong, suggest new experiments, and help plan and edit your writing.
12. Your supervisor may give you too many ideas when she gets overly excited about your questions/results. Some ideas will be useful. Chose according to your own plans of research. Make judgment calls independently. Ensure you have a logical explanation for why you choose something over other. Whenever unsure, ask your supervisor to hear your argument line and see if that would work to support the conclusions of your article.
13. Your supervisor will be direct about assessing your progress and your work. This is to ensure there are no misunderstandings. Don't take criticism personally. It is not about your person; it is about your work.
14. Inform your supervisor when you leave for vacations, health recovery, stays abroad in other labs, conferences. Unannounced leaves of absence will be grounds for firing.

What you should expect from the team

15. We are a team. As a team we have a central mission to do internationally recognized research in microbiology, deciphering novel properties of microorganisms. As a part of the team, you

should be collaborative with other team members. Exchange ideas. Help each other solve research problems.

16. Weekly meetings with the group and your supervisor are typical. You are expected to make a presentation of your results of the previous week, and your plan for the coming week.
17. Be an active participant in these meetings. Get involved in your teammate's research. Ask questions about other projects, offer help. This is your chance to contribute to the development of knowledge outside of your own project.

Authorship & intellectual property

18. You will be co-author on each other's papers if you have made significant contributions to research, intellectual input/writing of the manuscript (e.g., data for a figure + the figure and text explaining the results and read and commented on the final version of the manuscript).
19. If you contribute to another colleague's manuscript, speak up during meetings about your co-authorship role. The supervisor will have the final say regarding the authorships and the order of the authors in relation to their contribution. Being a member of the group implies accepting this condition.
20. You will be lead/first author on papers on which your ideas, writing and research work makes up for most of the manuscript.
21. Senior/last authorship is typically the PI, or the person with significant intellectual contribution (grant writing/idea generation and help plan experiments and write the manuscript). Senior authors supervise the work but may have not actively conducted experiments. Last author is often the corresponding author, the one that will respond to inquiries about data, material (e.g., cultures) transfer, and discussions of the paper.
22. The university has the rights to commercialization of intellectual property (IP) you have generated. So, when joining the group, you agree to this condition. When you make an invention, the timeline towards patenting takes years, time when the work cannot be published. If patented, the university will have most commercial rights to the invention. So, you will not get rich. Generally, in this lab we will sacrifice IP for scientific discovery.

Lab expectations

23. Lab notebooks are to be used at all times. They can save your PhD and your career. Maintain detailed, organized, and accurate lab notebooks and data records in English. When the student leaves the lab, they remain the property of the lab for 10+ years.
24. Once you've developed/established a new method for our lab, make a standards of practice document, and share it with the entire lab on OneDrive/Protocols.
25. Always bring your lab book and data sets to the lab meetings.
26. It is expected to experience failed experiments, mistakes, broken equipment, delays. You are expected to also communicate the bad news to your supervisor.

Expectations for completion of your Ph.D.

27. Mind the timeframe. Work effectively towards completion of the degree in a timely manner over 3 years. The degree includes teaching, taking courses, and research. All are integral to your development so take them all seriously.
28. Communicate your progress to your supervisor and PhD school. Regularly communicate your updates on progress of your PhD program (courses, teaching, and science results).
29. To complete your PhD, you are required to have 3 articles as 1st authors to be included in your thesis. Every 6 months you are expected to deliver a report on the progress of your research aiming at the 3 articles.

Aims

30. As a team we aim to produce internationally leading research.
31. As a mentor I aim to produce mentees capable of performing independent research of high quality that is internationally recognized.