UChicagoBiosciences

Choosing Your Research Mentor: A Student's Perspective

Student's Name: _____

Date: _____

Potential Advisor: _____

Motivation

Students embarking on their graduate careers are motivated primarily by the research questions they wish to pursue. While passion for one's research topic is important for a successful PhD, a good student-mentor relationship is equally important in creating a productive environment where the student will thrive. Many students fail to fully evaluate what they seek in their mentors and expect out of their graduate experiences before selecting advisors. This can lead to negative experiences in graduate school. This document is designed to help entering students to (1) evaluate their priorities and determine what they want out of their graduate careers, (2) have candid conversations with potential advisors to ensure they have clear pictures of the labs' cultures, and (3) make the advisor-student pairings as beneficial as possible to both parties.

The PhD is the longest and most challenging educational experience for many graduate students. As they mature into independent researchers, students at the University of Chicago are supervised by world-class researchers, and their PhD dissertations make significant contributions to their fields. Scholarship of this caliber demands high expectations of the students, e.g., in terms of work ethic, intellectual input and ability to overcome challenges. Though such demands of graduate research can be mentally exhausting, positive student-advisor relationships can mitigate the exhaustion and contribute to happy and productive careers. Students therefore expect thoughtful mentorship that takes into consideration their personal and professional goals.

This document was made for students by students, based on our own experiences and guidelines developed by other universities (see the Resource Guide below). We recommend first reading through each section on your own and considering your current preferences and priorities, as well as future goals. Consider talking about these topics with current members of the labs you are interested in — they know their lab cultures better than anyone. **Remember, the goal is for you to figure out what you want and need, and to decide whether a given lab is a good fit outside of specific research interests.** Once you've set up a meeting with a potential advisor, bring this worksheet along to take notes. Good luck!

Resource Guide

"Ben Barres: How to Pick a Graduate Advisor." (2014) *iBiology.* https://goo.gl/w1BWjj.
"Compact Between Biomedical Graduate Students and Their Research Advisors." (2008) *Association of American Medical Colleges.* https://goo.gl/k5NGEf.
"Expectations in Supervision." *The University of Adelaide.* https://goo.gl/1vd2Dc.
"How to Get the Mentoring You Want: A Guide for Graduate Students." *University of Michigan.* https://goo.gl/cGMnCS.
"IDP Forms and Documentation" (2017) *Stanford Biosciences*. https://goo.gl/i1TXAX.
"Mentoring Agreement." (2013) *University of Wisconsin-Madison.* https://goo.gl/tEmLwv.
"Yearly Planning Meetings: Individualized Development Plans Aren't Just More Paperwork." (2015) Vincent et al. *Mol. Cell.* https://goo.gl/QtnHf3.

Your Feedback About This Guide

This guide is an initiative of the BSD Dean's Council. It was designed for students in the Biological Sciences Division at the University of Chicago by E. Leypunskiy, D. Harrison, H. Yoo and V. Prince, with input from the BSD Dean's Council and the Faculty Graduate Education Advisory Committee. Please direct feedback to BSDStudentMentorGuide@uchicago.edu.

bsd dean's council

Notes

Before reading the rest of the guide, use this space to reflect on the goals you've set for your PhD and the requirements described in your program's handbook. After reading the guide, revisit this box and write down the topics you would like to discuss with your potential advisor. We urge you to focus on issues most important to you, whether or not they appear on the following pages.

Mentorship

A mutually beneficial relationship between the student and the mentor relies on transparency and compatibility. Consider how your mentor's views on the goals of graduate education and expectations on what comprises a complete PhD thesis align with your ambitions. Think about the relationship you hope to have with your PhD advisor. How does the advisor view his or her role as a mentor? What qualities do you hope to have in your mentor? What qualities does the advisor wish to see in his or her mentee? Will the advisor be your primary mentor or will you rely more on a senior researcher within the lab?

Research Progress & Feedback

Tracking your progress will help you stay focused and receive timely feedback. Consider what forms of assessment work best for you and how you can use these tools to improve your performance. How often will you present your research progress and in what format (lab meeting, subgroup meeting, conferences)? Does the advisor expect progress reports? If so, in what format? Will you have opportunities for one-on-one meetings with the advisor and, if so, how often? Will these meetings be student-led or mentor-led? What does the mentor expect from the one-on-one meetings? Who is responsible for scheduling, setting agendas and distributing notes after meetings?

Coursework

You should understand and be prepared to explain to your prospective advisor the course requirements of your program. Consider what remaining courses you plan to take, how well they align with your research goals in a given lab, and whether you'd benefit from taking courses beyond your requirements. Understand and be ready to explain the advisory structure of your program in terms of course selection. Does the PhD advisor have recommendations for coursework you should complete before joining the lab? Will the PhD advisor be supportive if you want to take courses beyond the minimal requirements or enroll in summer courses or workshops off campus? Will you be responsible for securing your own funding to attend such summer programs?

Teaching

You should understand and be prepared to explain the teaching requirements of your program to the prospective advisor. Consider how teaching fits into your career trajectory and, if you plan to teach beyond expectations of your program, discuss your plan with your advisor. Does the advisor expect you to TA a course he or she teaches? Is there an expected timeline for completion of required TAships? Will you be encouraged to participate in pedagogy workshops or TA beyond the minimal requirements if you wish?

Funding

Applying for and managing grant money is vital for a successful academic career. If you are a domestic student, does your graduate program support you on a training grant for one or two years? If you are an international student, make sure to discuss your specific funding circumstances with your prospective advisor. Does the advisor have enough funding for you once other sources come to an end? Are you expected to apply for fellowships? For which fellowships do students in the lab normally apply and what is the lab's success rate? How does the mentor train students in grant writing?

Candidacy Exams & Thesis Requirements

Discuss with the prospective advisor your program's criteria for advancement to candidacy (e.g., preliminary and qualifying exams) and thesis requirements. There may have been recent changes to the format or the advisor may not have had students from your program. Will the mentor provide guidance for the exam and selection of thesis committee? Who will be responsible for developing the thesis project? Will you have the opportunity to work on multiple projects in parallel in case your main project is not successful? Will you receive guidance from the advisor or the lab members in preparing for candidacy exams (e.g., written research proposals or presentations) and writing your thesis? Considering program requirements, what would a completed thesis look like from this lab?

Graduation Timeline

Though you're just beginning your graduate career, being aware of key milestones early will help you stay on track. What is the average graduation time in the lab and for your graduate program? What expectations do you have for your graduation time? What are the advisor's criteria for a student to be ready to graduate? Because the thesis committee plays an important role in overseeing your progress towards graduation, discuss how you will select committee members whose expectations regarding graduation timelines align with yours and your advisor's.

Publications

Publications are vital to your academic career. You should be able to learn the key elements of the publication process from your advisor. How many papers will you be required or should expect to have by the end of grad school? How many papers do students in the lab author by graduation? Will the advisor or senior lab members provide guidance for planning and writing publications? Who generates the first draft of the paper? How is authorship determined? What are your and your advisor's expectations for the intellectual contributions and responsibilities that justify authorship? If the results of your research could be patentable, will your mentor advise you how to protect your intellectual property?

Presentations

Presentation of your work is an important component of the graduate experience. Will you be encouraged to attend and present at conferences and program-specific events? If so, at what stage in your career? Will the mentor help you develop presentations or posters and provide feedback at practice talks? Will you be expected to receive external funding to attend conferences? What is the lab's policy on presenting unpublished data? What is the format of the lab's group meeting? Polished slides or raw data? Are all members of the lab required to attend the meeting? What is the frequency of presentations? What is expected of the presenter and the audience?

Time Commitments & Work-Life Balance

Consistent productivity throughout a 5-6 year PhD requires good organizational skills and work-life balance to avoid burnout. Think about whether you need help developing good planning skills and detecting if you're stretched too thin. Are there strict expectations regarding working a certain number of hours or days per week in this advisor's lab? Are there expectations for vacation?

Though conducting research is our primary obligation, many students take on responsibilities outside of their primary thesis projects, both in and outside the lab. Consider how much time you plan to dedicate to research vs. other commitments. Will the work hours allow for non-research commitments such as outreach activities, student government, recruitment, etc.? How much of your efforts in the lab will be spent on non-thesis projects? How will you be recognized in these collaborative projects? Will you be expected to share lab management roles, such as lab chores, animal care, plant care and tissue culture?

Career Development

Graduate school is a stepping stone to a career that can take many forms. Consider what career paths interest you and discuss them with your prospective advisor. Where do lab alumni work following graduation? Does the advisor help with job placement? What is the mentor's opinion of the students taking courses outside the BSD (e.g., in pedagogy, writing, law or business) if they align with their career ambitions? Are there expectations for timing of career exploration efforts, such as attending career development seminars and participating in part-time or summer internships? What is the appropriate proportion of time spent doing research vs. career development? Will the advisor help the student develop their resume, CV and job applications?