

Research Advisor Expectations

As students join laboratories for their PhD work, we'd like to share the following basic expectations and information for faculty who have taken on the very important role of research advisors for students in the Biophysics Program:

Student Financial Support

Students in the Biophysics Program generally engage in laboratory rotations during their first, and sometimes into their 2nd years in the graduate program, before deciding on the laboratory in which they wish to carry out their dissertation research. During these two years, while they are also fulfilling course requirements, completing one section of teaching, and their Preliminary Qualifying Exam (PQE*), the Biophysics Program provides full support of the stipend rate in effect (for 2020-21, the stipend has been set at a rate of \$40,632) and the "full" tuition amount (ie: for 2020-21, this tuition rate for 1st and 2nd year students is \$54,576). If the student is a US citizen, about half of that support generally comes from either a student's outside fellowship, or from our Program Training grant, and the remainder from limited program funds.

For students who will be finishing their 2nd year in the Biophysics Program, and entering their 3rd year, besides the completion of required courses, teaching, and the PQE (*the PQE for Biophysics is a hypothesis-driven research proposal *off-topic* from the student's planned PhD research topic), satisfactory progress is determined by their having completed research rotations and identifying a dissertation research advisor (or co-advisors, as the case may be). Financial support is expected of research advisors at the Stipend and Harvard "Reduced" (for the student's G3 and G4 years) Tuition** rates in effect for these years, and then at the Stipend and "Facilities Fee" rates for the 5th year and beyond, as well as mentoring and guidance support, including participation at periodic meetings of the DAC (Dissertation Advisory Committee). Attendance at these meetings is one of the commitments we anticipate that faculty advisors take on and accept as part of their mentorship role for students working in their laboratories.

** Due to NIH Graduate Student Funding and budgeting restrictions, the Biophysics Program has in past years contributed an amount toward the 3rd and 4th year student "Reduced" Tuition amounts to ensure that the total Graduate Student Compensation amount coming from the Federal grants of PI's is below the NIH allowed 1st year postdoctoral salary rate (currently set for the 2020-21 year at \$52,704). This is done to allow faculty to budget and pay for the cost of a graduate student on NIH RO1 awards, if applicable, without needing to be sure to have other discretionary money available to cover the difference between what NIH allows as graduate student compensation in the budget process, and the combined cost of tuition and salary (which for the upcoming 2020-21 year would otherwise be \$58,618).

For students who continue to be appointed to an NIH institutional training grant slot, or who are recipients of their own individual fellowships or training grant awards beyond their 2nd year, the stipend supplement to these awards must come from non-federal, non-NIH/ PHS funds. We anticipate knowing the standard stipend and tuition rates for the following July-June period in the spring, and will communicate any required faculty advisor support necessary for the next yearly period starting July 1st, in letters sent out in April or early May.

Forming the Dissertation Advisory Committee

Roughly 6 months to a year after the completion of their PQE, students are expected to identify and to convene annual or semi-annual (depending on the nature of the research, how quickly things may change, or the advice of the DAC itself) meetings of a Dissertation Advisory Committee (DAC), at

which their advisor(s), a Chair of the Biophysics Program, and three faculty members who are chosen by the student and his or her advisor would be present. These meetings last for roughly a two-hour time period, and are to make sure the student is on track toward completion of the dissertation until that point when the student is ready to defend and graduate. This DAC committee is the body (in consultation with the advisor) that has ultimate decision as to whether or not the student is ready to defend.

The DAC is made up of 3 individuals (faculty-level) considered to have expert knowledge in the student's chosen field of research. The Program suggests that at least two of the DAC members hold a Harvard faculty appointment (for reasons pertaining to the later forming of the Dissertation Defense Committee detailed below). The advisor(s) attends the DAC meetings (mandatory), but is not considered as one of the 3 faculty members serving on the DAC. A Program Chair, also generally attends each DAC meeting (if one of the Chairs are unable to attend, a representative of the Program will do so).

Responsibilities of the Dissertation Advisory Committee (DAC)

The DAC has several functions. The first will be to approve the student's dissertation proposal. Second, the DAC, in consultation with the dissertation advisor, will periodically evaluate the progress of the student's dissertation research. The DAC may make recommendations to the dissertation advisor as well as the student with regard to the student's progress towards completion of the dissertation. Third, the DAC, in consultation with the dissertation advisor, will determine at what point the student is ready to defend their dissertation. Finally, students must submit their list of three dissertation examiners for the defense to the DAC for approval. The Graduate School of Arts and Sciences requires that at least two of the examiners for the dissertation hold faculty appointments through a Harvard Department (and Biophysics allows students to carry over up to two members of their DAC to serve on their Dissertation Defense Committee, so it is often a good idea to make sure there are at least two faculty members who would fulfill this requirement at the time of forming the DAC, to avoid having to completely recreate the Dissertation Defense Committee at a later date, when the student is ready to defend and graduate).

Scheduling and Frequency of Dissertation Advisory Committee (DAC) meetings

We ask that students notify us as soon as they have identified a potential committee (in consultation with their advisor(s), and/or the Program Chairs and received approval of the committee makeup from their advisor. Once given the approval, we request that students make the first contact with the potential DAC members so that the student can address any questions about their science and future planned science with them, directly. After a student has had 3 members agree to serve on the committee, we help set up the first, and subsequent, meetings with all the people involved.

A student's first DAC meeting should take place roughly no more than one year past the completion of the qualifying exam, but it can certainly occur much earlier, if it is appropriate. One week prior to the meeting a student must submit to their DAC and the program, a written dissertation proposal (approximately 10 pages) describing his or her dissertation project. The format for the proposal is similar to that of the qualifying examination, i.e. abstract, background and significance, hypothesis, rationale, specific aims, experimental design and interpretation, references, and figures, but far less formal in nature and containing real data from the work that has been done on their research to date. It may also contain manuscripts as addendums to the written dissertation proposal/ progress report. Students should also prepare a slide presentation to present at the DAC meeting to augment the written document and focused on current and ongoing projects for which the student would benefit from receiving feedback from the committee members. Subsequent progress meetings will occur every 6-12 months, based on recommendations from members of the DAC.

Expectations for Student Presentations of Their Research Work

In addition to presenting their research work as part of the Dissertation Advisory Committee meeting requirement, the Biophysics Program expects that graduate students in the program will be able to present on their work at internal graduate program events such as: poster sessions, retreat talks, and graduate student research dinner talks (in addition to research presented at national meetings in poster or talk presentation format). The presentation of their work is an important part of the student's training experience and we anticipate faculty advisors being fully supportive of this experience.

The Mentoring Role

The Biophysics Program is committed to promoting a safe, supportive, and dynamic environment for the education and training of our students. We are committed to Inclusion and Diversity and expect that faculty engaged in advising students within the program share these commitments and take on the mentoring role as the important and serious responsibility that it is.

As part of this responsibility, we expect that faculty advisors will:

- **Meet regularly** with students to discuss their scientific research goals and progress in the laboratory.
- **Support students** in the fulfilling of their program requirements and access to resources to further their scientific and professional development goals.
- Conduct yearly **Individual Development Plan (IDP)** meetings with students, including conversations about career and long term goals and options.

We encourage faculty advisors to engage in offered training for:

- **Title IX** concerns.
- Understanding **Implicit and Hidden Bias**.
- HILS (or other) **Mentoring Training** Workshops.

Diversity, Inclusion, Belonging and Anti-Racism

The Biophysics Program is committed to fostering a diverse, inclusive, welcoming and supportive environment for students of all races, ethnicities, belief systems, nationalities, genders, sexual orientations, and with disabilities. We categorically denounce all forms of racism, institutionalized inequality and the injustices that have been borne by members of minority and other marginalized groups, and pledge to take active roles in helping to redress such inequalities. We ask and expect that our affiliated faculty will join us in being part of achieving this goal through awareness, thought and action toward these aims.

If any questions, please don't hesitate to contact me (Michele_jakoulov@hms.harvard.edu) or Dr. Venkatesh Murthy, Chair, and Dr. Martha Bulyk, Co-Chair of the Biophysics Program.