Guidelines for Inter-Institution Graduate Training

Biological Sciences Graduate Program (BISI) University of Maryland, College Park

Overview

By virtue of its location in the national capital region, the Biological Sciences Graduate Program (BISI) at the University of Maryland, College Park (UMD) has a long history of involving researchers from non-UMD institutions in the mentoring of its students. The benefits of this include diversifying the research opportunities available to BISI students and strengthening collegial ties between UMD and nearby institutions. Chief among these are Federal units, such as the Smithsonian Institution and the National Institutes of Health's Intramural research programs.

Despite the obvious benefits of off-campus mentoring, training with off-campus researchers also presents a number of logistical and administrative challenges. In addition, BISI is obligated to facilitate excellent training of all of its students while also enhancing the research climate at the University of Maryland, College Park. These issues require transparent processes for potential off-campus mentors, such as their affiliation with BISI, the supervision of rotations and dissertation research, and mechanisms to ensure awareness and satisfaction of program requirements and milestones. A similarly transparent process is needed for students considering off-campus mentoring. This document seeks to describe these processes.

For current and potential BISI Affiliate faculty

Non-UMD researchers who are Affiliates of BISI's CAs may serve as lead mentor of its students. BISI's policies governing affiliation were formalized in 2020 (see Appendix A), and are in keeping with related UMD Graduate School policies on Dissertation Committee composition and Graduate Faculty membership. Key aspects of these policies are:

Affiliates are known members of the BISI community. Formal affiliation of off-campus researchers with a BISI CA is required to serve as a primary research mentor*. Initial affiliation requires a research seminar and a vote of approval by existing CA faculty. Seminars are also usually accompanied by additional meetings with program faculty and current graduate students. Upon a successful vote, the BISI office will work with the new affiliate to make them aware of the program's policies and traditions, and to encourage the affiliate to participate in the life of the program as they are able. Beyond mentoring BISI students, participation may also include a) attending weekly research seminars, b) participating in the teaching of graduate courses, and c) attending CA faculty meetings and retreats. Renewal of affiliation occurs every five years and is contingent on some degree of participation.

Note that this system is an "advisor first, students later" model, and assumes that students join BISI as full-time students. Importantly, this model precludes "executive PhD" arrangements in which members of an unaffiliated researcher's lab maintain their employment while pursuing graduate training.

Each off-campus Affiliate partners with an on-campus faculty co-advisor. UMD policies require that the Chair of a dissertation committee be a Regular (i.e. on-campus, tenure track) member of the Graduate Faculty. Thus students mentored by off-campus faculty must work with the Chair to ensure

^{*} Such BISI affiliation is not required to serve only as a non-mentor dissertation committee member. Off-campus committee members do require the blessing of the UMD Graduate School through appointment as a Special Member of the Graduate Faculty.

adherence to program guidelines. Because a student based off-campus can be "out of sight, out of mind," it is crucial that both the on-campus Chair and the off-campus mentor be in regular communication with each other, and with the CA and BISI administration as needed.

There is no requirement that the research conducted under the supervision of an Affiliate faculty member involve formal collaboration (such as would lead to jointly authored publications) with the oncampus committee Chair. However, it is evident that such collaboration is desirable wherever possible. By uniting the research interests of the co-advisors and the student, all parties benefit and communication is naturally enhanced.

<u>Financial support is a factor in placement</u>. BISI guarantees at least five years of full tuition remission and stipend support to all of its enrolled students. In the first year, students are usually supported by a teaching assistantship (TA) while they rotate through different potential labs and take the bulk of their required graduate courses. This TA supplies full support for stipend and tuition remission, and comes from a pool of TAs managed by BISI (see below). However, once the student joins a lab for their dissertation research, that lab, or the unit of which it is part, will "adopt" the student going forward. It is therefore essential that a plan for support through the fifth year be in place before a student is placed, and this plan must be centered on resources from the hosting unit. How this works is detailed below.

The UMD departments of Biology, Cell Biology & Molecular Genetics, and Entomology fund the pool of TAs to serve undergraduate biology (BSCI) courses they offer. This pool is further augmented by lines for introductory BSCI courses managed by the College of Computer, Mathematical, and Natural Sciences. These TAships are intended to support the graduate training of students based in the CMNS departments that teach these courses, but are also used to support the first year of nearly all BISI students, regardless of where they end up being placed. When a BISI student joins a lab in one of these departments, they are guaranteed ongoing access to the TA pool. This is not the case when a student joins a group in non-CMNS college at UMD, or an off-campus lab. While they do remain eligible for TA support, they are a distinctly lower priority. Host labs outside of the three core UMD departments must therefore have access to grants, institutional training funds, or their own departmental assistantships before agreeing to take on a BISI student. Occasional gaps can be remedied with BISI-administered TAs, but these cannot be the primary mode of support.

It is common to establish suitable support commitments through a Memorandum of Understanding (MOU) between the off-campus unit and BISI administration. This is frequently done to arrange stipend and tuition remission at the National Institutes of Health. In other situations an MOU is not required, such as when a student is paid by a project grant or other funds under the off-campus mentor's direct control.

<u>There are practical limits</u>. The faculty and staff that manage BISI are working to create a rich research environment at UMD, and using state-appropriated funds to do so. Mentoring of students by off-campus researchers is an important part of this environment, but cannot dominate student placements in any CA. At present there is no precise quota per lab, per incoming class, or per CA, but the Director may intervene at her/his discretion to maintain an appropriate balance.

For BISI Students considering off-campus mentors

Many BISI students are attracted to UMD by its proximity to Federal (and private) research institutions, which offer unique research opportunities. In considering working with an off-campus mentor, students should be mindful of the following:

<u>Full-time commitment</u>. BISI students are expected to engage fully in their graduate careers, with the bulk of their time spend on the original research and scholarship that leads to a dissertation or thesis. In

exchange, assistantships are provided that convey both a stipend and tuition remission. In keeping with UMD Graduate School policy, graduate assistants in BISI may work no more than 10 hours per week for another employer, whether it be on- or off-campus.

<u>Advisor choice</u>. In some CAs, students can be admitted directly to the lab of a current CA faculty member, including affiliates via a co-mentor. Similarly, faculty supervising students in first-year rotations must be <u>current</u> program faculty. Rotations with unaffiliated faculty, in hopes of arranging affiliation after the fact, are expressly prohibited. When a host lab has been identified, the student and mentor must submit the <u>Advisor Choice & Agreement Form</u> to the BISI office for approval.

Rotation timing and international students. Because nearly all first-year rotators in BISI are both taking classes and serving as a TA, rotations with off-campus mentors are best arranged during the third rotation period, in January of the first academic year. Additionally, international students at UMD on a student visa <u>must</u> do any off-campus rotation in January, with no overlap with the Fall or Spring semesters. This is due to work authorization requirements at most Federal laboratories that can conflict with TA duties and visa restrictions on hours worked per week (which apply even to unpaid work). The expectations for, and subsequent outcomes of, each rotation should be documented via the Rotation Agreement form.

<u>Funding.</u> While BISI guarantees students at least five years of support for doctoral studies, the source of support devolves from BISI to the host department or off-campus unit after the first year. Thus, students whose primary mentor is off-campus must rely on their host institution for most or all of that support beginning the Summer after the first year. Students exploring off-campus placements should discuss this requirement with their prospective mentor, and be in touch with their CA Director and the BISI office as needed to make necessary arrangements. An exception worth noting occurs when the on-campus mentor is a both a member of the department of Biology, Cell Biology & Molecular Genetics, or Entomology, and is an active collaborator in the dissertation research (as defined by expected co-authorship of publications). In such cases of truly joint mentoring, high-priority access to the BISI-managed TA pool remains during all years.

The on-campus co-advisor is crucial. The UMD Graduate School requires that the Chair of a dissertation committee be an on-campus, tenure-track faculty member. BISI further requires that this person be an existing member of the CA in which the student is enrolled. When working off-campus under the primary mentorship of an affiliate faculty member, the on-campus co-advisor serves, at a minimum, as a guide to procedures, opportunities, and UMD campus life more generally. However, in cases where the co-advisor is actively engaged in the dissertation research, there is more incentive for the on-campus advisor to track the student's progress closely. Students are thus encouraged to choose on-campus co-advisors that have a genuine interest in the work of their off-campus mentor, and to explore formal research collaborations where possible.