



24 May 2013

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Re: UW Medicine Pathology Molecular Basis of Disease PhD Program Review Response

**Response to the Review Committee**

We first wish to thank the members of the review committee and officials from our Graduate School for committing their expertise, time, and effort to reviewing the Molecular Basis of Disease PhD training program in the Department of Pathology at the University of Washington. We appreciate the committee's recognition of our strengths and assets and are very pleased the committee is recommending 10 years until the next formal external review. We are even more grateful for identifying areas in which we can improve our training program. Below, we present a point-by-point response to the committee's comments. We intend to adopt, either in letter or spirit, all of the recommendations made by the committee. Thank you again for helping us improve our graduate training program.

**Strengths and Assets**

We thank the committee for their endorsement of our strengths and assets. We appreciate being allowed 10 years until the next external review and will act upon the suggestion to undertake an internal review, focused on the issues raised below, after 3 years. In particular we are glad you noted:

1. The expanded focus of the Program on translational research and the expanded pool of first-year graduate student support initiated by the Chair.
2. The leadership through the expansion of Dr. Bowen-Pope and the committed support of co-Directors Drs. Mahoney and Campbell.
3. The incoming Program Director already in the Department attending meetings and being educated in all aspects of the program prior to assuming responsibility in July 2013.
4. The recent growth in both the number and the academic quality of the incoming graduate students. It is fair to add that both last year and this year we had an unusually high acceptance rate among our first-choice students (6/6 and 4/6 for 2012 and 2013 respectively).
5. Effective recruitment of URM students as a result of a dedicated outreach effort.
6. Outstanding administration of the program by Steve Berard, whose role is central and critical, and whose work-load will be supported through the recruitment of competent help; a search is under way for an assistant.

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**Opportunities for Improvement**

The committee noted a number of areas in which we might aim to improve or enhance our program.

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The training program is in a period of transition and change, and the committee suggested an internal review at 3 years. We embrace this idea and will have internal reviews at year 3 and year 6 or 7 to evaluate the progress of our training program.

It was suggested that we might formalize learning objectives for each course. Courses that are tailored to deliver specific information, or to develop concrete skills, will offer concrete learning objectives to be presented to the students at the first session and posted on-line. Most of our courses are in seminar format. For these courses, we will recommend that course directors list the goal of each course on the syllabus and discuss these goals during their introductory lecture.

It was suggested that courses be evaluated annually. This fits well with another recommendation that we establish a curriculum committee allowing for increased diversity amongst the Faculty involved in developing the MBD program content. We will do both.

The suggestion that we should energetically solicit student feedback on individual courses fits with another imperative: junior faculty documenting both their participation and their effectiveness in teaching. Both metrics are important parts of their evaluation for promotion. In the past we have not had much success with a paper-based system for evaluation but hope to solicit more thoughtful feedback and centralize record keeping through an improved on-line system.

The mis-match between the course catalog and the courses actually offered has been highlighted by a single recent problem, and the overall level of non-correspondence is low. However, we take the point that even one course offered and then withdrawn is one too many. The Program Administrator will be careful to revise and maintain the course listings.

We were advised to schedule courses either at the beginning, or at the end of the workday to minimize disruption of laboratory time. Since laboratory research is open-ended, we feel it would be a mistake to schedule late afternoon courses, but we would consider shifting more courses to the beginning of the day. Some students have, in the past, remarked that they like mid-day classes since they can set up an experiment and let it run while in class and then harvest it later. Clearly, one size does not fit all. We will ask about the timing of each class as part of asking for student feedback. Additionally, we will test whether offering more early morning classes might be less inconvenient than the present scheduling system.

We strongly endorse the suggestion that our students have more opportunities to write about their science. The final decision on how to proceed will belong with a new curriculum committee. One option is to require written annual research progress reports that will be critically reviewed by faculty and will also form part of the student's record for evaluation of overall program progress. Another option suggested was a requirement for the acceptance of a manuscript prior to graduation. We are less sure about the introduction of such a requirement since this will inevitably prolong the time-to-graduation, a metric to which we were advised to pay attention in light of its importance in the evaluation of Training Grants. We continue to favor the idea that each student create a 'submit-able' manuscript prior to graduating. The issue of changing this policy will be discussed and resolved by the proposed curriculum committee.

The suggestion that all students should have the opportunity to give a series of full-length research talks is well taken. We will suggest to the curriculum committee that senior graduate students be incorporated as speakers into our Path Presents seminar series (Path 520).

Not all students want the opportunity to teach, and we do not plan to make it a requirement. However, some students value teaching experience. Since we do not have undergraduate pathology students, opportunities are limited. We will consider encouraging the more senior graduate students to TA the courses undertaken by students in their first 1-2 years in the program. In addition, we could encourage senior students to co-teach a Pro-seminar (Path 507) with their mentor.

The Seattle environment is rich in biotechnology and there should be ample opportunities to bring in speakers from industry. In the future, we will place more emphasis on this and create opportunities for them to meet with interested graduate students and to discuss career options. Exposure to industry scientists already occurs among trainees supported by our Department's training grants, and we will expand this to all graduate students in the Department of Pathology.

The curriculum committee will be charged to discuss the possibility of linking an annual written self-evaluation and of setting well-defined milestones with the objective of increased practice in academic writing. Six months seems a very short interval for concrete progress to be made and significant milestones achieved but an enhanced annual review of progress by each student should be very profitable.

The evaluation of each student's progress towards the thesis defense will be incorporated in a more concrete reporting structure, as outlined above. It will be the task of the curriculum committee to decide on the details, and then a distinct committee with non-overlapping membership will be called upon to oversee each student's progress and identify developing problems early. The time-to-degree measure will need to be thoughtfully balanced against the exigencies of individual projects and against students' need to publish high-impact papers both of which contribute to the strength of T32 renewals. A student oversight committee (as we may call it) would cover this territory.

We instituted the recruitment of adjunct faculty as a way to bring in clinical Professors who have funding and the desire to supervise graduate students. While the process of appointment of such adjunct faculty may sometimes appear frustratingly slow, it acts as a critical quality control step. Our graduate faculty need to be convinced that all MBD trainers have the academic credentials as well as the motivation to supervise students, and our Appointments and Promotions process serves this need. It would be inefficient and redundant to create a parallel process to evaluate clinical faculty for adjunct positions. We will however, work to inform basic science Faculty of how to evaluate the academic standing of someone who devotes significant time to clinical work.

It was suggested that MBD faculty should not be prohibited from taking graduate students until they have achieved R01-level independent funding, but should instead be allowed to use start-up funds for this purpose. This suggestion was based on a misunderstanding; there is no such prohibition, and some of the junior faculty members are taking graduate students based on start-up funds.

### **Faculty Development**

In the area of Faculty development, it was suggested that we should create a more defined process for mentoring mentors. We are grateful for the suggestion that online tools are available from the HHMI website and will encourage the use of these tools.

We would like to obtain feedback on the mentoring process and gain early information if any problems arise in the mentoring relationship. The committee that oversees the progress of each student will be charged to consider the best way to achieve this.



### **Program Administration**

The complexity of the task faced by the incoming Graduate Program Director is not underestimated. Dr. Crispe is already in post in the Department of Pathology, took part in the 2013 graduate student recruitment process, and is attending all key meetings. Time will be allocated to go over course structures and course requirements and for Dr. Crispe to be fully briefed on live issues. Dr. Bowen-Pope will continue to be available after the transition, and Dr. Crispe will receive backup from the co-directors and Steve Berard.

As the program grows, it will be appropriate to divide administrative tasks. Specifically, we will convene distinct committees for curriculum oversight, graduate student admission, and the ongoing monitoring of students' progress. Limiting faculty terms on each of these committees will encourage a diversity of perspectives, and also will foster engagement of our new Faculty in the process of graduate education.

We will also promote faculty involvement by holding regular discussion meetings to which all our graduate faculty will be invited. We would not expect full attendance but such meetings will sample the perspectives of the most engaged faculty, and also provide a basis for recruitment of members to the standing committees.

### **Students**

The problem of supporting first-year students during rotations, and the equitable division of the costs particularly in departments with no history of such support, is indeed pressing. We are grateful for the suggestions offered.

We are weighing the costs and benefits of scheduling formal social events for the students. The issue is whether we should we support frequent smaller events, or less frequent larger ones? Student opinion, of which we are aware, is divided on this issue. One option that the Graduate Program team discusses is to combine the students' opportunity for making a scientific presentation and the social event into a quarterly graduate student symposium.

There has, in the past been a student handbook, and the information contained in the handbook is presented on the Pathology and MBD web pages. However, it may be useful to have all the pertinent information concentrated in one place. The solution we discussed is to distill the information into a PDF document and render it downloadable. Those who like paper could then print it out; those who prefer an electronic version could view it that way.

Finally, the complexities of integrating students with prior knowledge of pathology, or another relevant discipline, such as MSTP students but also qualified MD and DVM students, into the course structure has, in the past, been addressed ad hoc by the Program Director. In future the curriculum committee can discuss guidelines that might be published in the handbook. That said, there will always been a need for some discretionary action to ensure that students are learning what they need to know but not duplicating prior knowledge.

Thank you again for your thoughtful review of our program.

Sincerely,

A handwritten signature in blue ink, appearing to read "Tom Montine", with a stylized flourish at the end.

Thomas J. Montine, MD, PhD  
Alvord Professor and Chair

Department of Pathology

cc: John Slattery, PhD  
Vice Dean, Research and Graduate Education  
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Sheila Lukehart, PhD  
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Dan Bowen-Pope, PhD, Professor, UW Medicine Pathology

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