

DEPARTMENT OF BIOLOGICAL STRUCTURE PROGRAM REVIEW
Departmental Comments on the Review Committee Report
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May 20, 2007

We want to start by thanking the committee for their review of our graduate program and Department. We appreciate their efforts and find it gratifying that their conclusions are similar to our own assessment of our unique position within the School of Medicine.

Overall, the committee appreciated the Department's strong faculty, including our recent recruitments that have strengthened our research programs. The Department is competing well for research funding, including support for renovating our research space to provide a strong base for future recruitments and research. The Department's faculty members are very active participants in interdisciplinary programs and also carry a large teaching load in the anatomical sciences in the Health Sciences curricula. The committee pointed out the tension between the teaching and research interests. This is a major issue that the Department and the School of Medicine need to address if we are to continue providing high-quality instruction in anatomy, histology and neuroanatomy. This has been a concern of ours for over thirty years, and we suspect it was an issue faced 60 years ago when the School was formed. A major issue is how to provide excellent teaching in medically important areas when little modern research is being done in those fields. We need to continue to address how faculty can develop competitive research programs at a major research institution while carrying heavy teaching loads outside their research areas.

What follows are a few comments on the committee's findings.

Weakness 1. Graduate training is not a formal, high-priority, departmental activity.

It is certainly true that the Department is not administering a formal departmental graduate program. Students are recruited from interdepartmental programs which have their own individual structure. The core of any graduate student training is the environment within their research groups. We believe that environment is best supported by encouraging the student and his or her advisor to work together with minimal departmental involvement. The review committee did not point out anything that would benefit from a more "formal, departmental activity". The Department will continue to be sensitive to this issue, and when appropriate, we will pursue a more formal approach.

The informal nature of our program emphasizes individual strengths in scientific creativity, competence and productivity which is the highest priority of graduate education in Biological Structure. The number of students in the laboratories utilizing Departmental resources is a statement of the strength and priority of graduate education in Biological Structure. Given the other recommendations of the committee, particularly with respect to departmental teaching requirements, we think we are placing an appropriate emphasis on our graduate program.

Weakness 2. There is little sense of cohesion, collaboration or community among the faculty.

This has been a concern in the department for many, many years. Addressing the sense of community has proven difficult, given the breadth of scientific disciplines represented in the Department's faculty. Our plan is to use the core faculty interested in developmental biology and the emphasis on novel imaging technologies from molecular to human structure to reestablish a cohesive scientific program that includes vision sciences and neurobiology. The resurrection of the departmental seminar program is a first step in this direction.

Weakness 3. There is no discussion about the department's mission.

The department's mission has been discussed for at least the past 30 years. Currently the discussion is the focus of the FTE Planning Committee. The overall mission is pretty clear: do modern biological research while providing instruction in the anatomical sciences. Future faculty appointments will need to be consistent with this mission. What is becoming clear, and was to the review committee, is that resources from outside the department are going to be needed to accomplish this.

Weakness 4. Access to graduate students is more limited in Biol. Structure.

Our current recruitment mode through the interdisciplinary programs was the result of our realization that a more effective method was needed to add high-quality students to the Department's research groups. We've achieved a sustainable balance between the resources available for students and the number of students in the labs. Even if we had more access to students, it is not obvious where their funding would come from. The training grants are reducing their support for graduate students, so individual PIs and the Department are expected to provide more support for students. Increased access to students at this point is not our biggest concern. We suggest that the model in use in Biological Structure will soon be used by most departments given the limitations of funding and resources.

The committee also stated our new faculty will have more difficulty in getting their programs underway due to a lack of graduate student participation. There is no evidence for this suggestion and it is nearly impossible to document that assertion. Funding for scientific programs is no different in Biological Structure than in other departments. The primary difference is in the volume of teaching unrelated to modern research efforts. Whether a new faculty member has students in their labs is not going to be a hindrance in their career development. A quick comparison of the quality of the students, their productivity and where they go for post doctoral education shows Biological Structure compares very favorably with all other programs in the University. It needs to be recognized that research groups operating with only post-docs and scientific staff can be more productive per dollar than those based on dealing with and training graduate students. The goal of the Department's graduate program is education, not providing an easily accessed labor force.

Weakness 5. The department's professional school teaching obligations come at great cost and are unsustainable.

The committee expressed this idea very well. This is an issue requiring attention from outside the Department. Perhaps a few more committee reports like this will increase the visibility of the problem and prompt the School's administration to address it. More resources and changes in policies that can increase the wages and promotion opportunities for the teaching faculty would be helpful. This might be done by establishing a new track of "Master Teacher" in basic science departments, similar to the Clinician Educator track in clinical departments.

Weakness 6. The department needs to increase its mentoring of young faculty, encouraging them to seek funding in a timely manner, and assisting them in developing their teaching skills.

This is a difficult item to address without specific suggestions about how our efforts in these areas can be augmented. Our Faculty Development Committee works hard to make sure the faculty know the importance of external funding and development of their teaching skills. We provide advice and mentoring opportunities as needed, and to do more would be to micromanage the careers of our young faculty.

Recommendation 1. The Ph.D. program should continue, and perhaps the departmental program should be "rekindled" with an emphasis on developmental biology or vision science.

Continuation of our current program is essential for our continued participation in some of the interdisciplinary programs, and the review committee understood this. Restarting recruitment into the departmental program will require a clear description of the benefits of doing so, as well as identification of faculty time and energy to sustain the program. If a coherent program can be designed for training in developmental biology or vision science, the departmental faculty will be glad to consider it. Given the interdisciplinary and interdepartmental nature of modern research, it is more likely that a new interdepartmental program in developmental biology would be the outcome, with Biological Structure as leader. It should also be noted that it is probable that the School of Medicine will soon establish graduate student recruitment activities that closely resemble the model in Biological Structure for reasons of administrative and economic efficiency.

Recommendation 2. The School of Medicine needs to develop a plan to support the teaching of anatomy.

Support for the teaching program requires additional resources and/or policy changes. The Department has contributed substantially to supporting its teaching activities, but the issue also requires attention from the School of Medicine. We recognize that additional funding will be a major problem for the School, but some administrative changes, particularly in the promotions policies for the Department and the School, could provide upward mobility for our teaching faculty.

Recommendation 3. The Department needs a comprehensive 10-year Strategic Plan.

Our past attempts to generate strategic plans have led to interesting discussions, but they have been ineffective due to two things: a lack of consensus about how our challenges should be addressed, and a lack of resources to address them effectively. At this time, especially with the reductions in all sources of support for teaching and research, we perhaps need to develop a long-range plan with a focus on how we will trim our research and teaching to preserve the core activities within the Department. In the past, when we've discussed strategic plans, we've concentrated on new opportunities supported by new resources. The reality of reduced resources will play a major role during our next discussion of plans.

Recommendation 4. The Department should implement a formalized mentoring program for younger faculty members.

The School of Medicine recommends mentoring at different levels for young faculty. These policies are in place and are being followed. Our Faculty Development Committee reviews all junior faculty annually, and often meets with them to discuss their progress and provide guidance on all aspects of their career leading up to tenure. The senior faculty are also involved in helping the junior colleagues with NIH and other grant proposals. The current approach of the Faculty Development Committee has been successful and sufficient for identifying potential problems. These can then be dealt with by formation of individual mentoring committees. This has worked well in the past.