

Graduate Program Review
Department of Oral Biology
School of Dentistry
University of Washington

Review Committee:

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Introduction

The review committee was supplied with the self-study report prepared by Drs. Izutsu and Dale-Crunk, as well as a 5 Year Plan for the Department of Oral Biology completed by Dr. Izutsu shortly before the site visit. Shortly before the site visit, internal members of the review committee met with Dr.'s Izutsu and Dale-Crunk, and with Dean Somerman. During the site visit of May 8-10, 2005 the full committee engaged in interviews including individual meetings with the Chair of the department, the Director of the graduate program, the present Dean of the School of Dentistry, the previous Dean of the School of Dentistry, all tenured and tenure-track faculty of the department, all research faculty of the department, many adjunct faculty, and nearly all current graduate students of the Oral Biology graduate program.

Overview and Historical Background

It is important to emphasize that the Department of Oral Biology offers the only PhD program in the entire School of Dentistry and in addition, offers a DDS/PhD program and two Masters degree programs; the Master of Science, and the Master of Science for Dental Hygiene Educators. The graduate program is presently directed by Dr. Beverly Crunk-Dale, with the assistance of a steering committee consisting of Drs. Izutsu, Herring and Presland. The Ph.D. program recruited its first PhD student in 1981. This program operated in provisional status for a number of years, but has enjoyed full standing for the last decade. Over the last decade, the mean yearly enrollment in the PhD program has been about 10, while the mean yearly enrollment in each of the two Masters programs has been about 1. 7 PhD degrees and 8 Masters degrees have been awarded in the last ten years. The Department of Oral Biology presently consists of 7 tenured and tenure-track faculty, 3 research faculty, and 22 adjunct faculty.

Findings of the Review Committee

The Review Committee believes that the following items represent notable strengths of the Graduate Program in Oral Biology

1). As the School of Dentistry of the University of Washington is among the premier research-oriented dental schools in the world, and as the Graduate Program in Oral Biology is the only PhD degree program in the School of Dentistry, it is imperative that this Graduate Program continue and that it enjoy sufficient resources to advance on the success enjoyed by this multidisciplinary research and educational program..

- 2). The program has an excellent record of success in training PhD students who have gone on to successful careers in the area of their training.
- 3). The faculty and adjunct faculty of the Department of Oral Biology are deeply committed to graduate training. The department has been ably led by its Chair, Dr. Ken Izutsu, and the Director of the Graduate Program, Dr. Beverly Dale-Crunk has provided strong leadership toward improving the graduate program.
- 4). Faculty of the department are hard working and productive research scientists, with international reputations. The average level of grant funding of the faculty is good.
- 5). Current students in the graduate program are bright, mature scholars, who are deeply appreciative of the quality of training they are receiving.
- 6). The physical space and equipment resources of the department are adequate, and they are efficiently used. The faculty have a laudable culture of sharing equipment and other resources. Investigators within the department are extremely interactive and collaborative.
- 7). The recently initiated DDS/PhD program shows great promise.
- 8). The program has energetically followed the recommendation of the previous 10-year review of the graduate program by greatly increasing the participation of adjunct faculty in training students in the graduate program. This has substantially strengthened the program.

The Review Committee wishes to suggest a number of ways to improve the graduate program, which are viewed as modest adjustments to a program that is already working well. In addition, however, we have identified several of areas of concern that mainly relate to the future of the Department and its graduate program. These represent major challenges, which the department fully recognizes. Challenges are accompanied by opportunities, of course.

- 1). Above all, the title "Oral Biology" fails to represent adequately the scientific resource that the Department provides to the entire School of Dentistry. The Department and the School could consider a name that encompasses the excellence of the multidisciplinary efforts in the Department. (Possible suggestions: Dept of Multidisciplinary Research; Dept of Scientific Research)
- 2) The small size of the core faculty of the department, due to the statistics of small numbers, inherently is accompanied by the potential for large fluctuations in research grant funding, and therefore, large fluctuations of indirect cost returns and "salary recapture" funds, which represent major sources of funding to maintain the infrastructure of the graduate program. The large pool of participants in the graduate program provided by the adjunct faculty ameliorates the risk that individual lapses in grant funding will undermine the capacity to provide a sufficient number of mentor laboratories capable of sponsoring the training of PhD students. However, as indirect cost and salary recapture funds derived from grants of adjunct faculty do not contribute to financing the office staff required to administer the graduate program, a period of "bad luck" of core faculty in grant awards could undermine the effectiveness of the entire graduate program.
- 3). The small size of the core faculty also carries the risk of potential instability resulting from the impending retirement of several senior faculty. Maintaining the faculty at the present size and strength may require a combination of excellent planning and good luck. It is essential that planning for the next generation of faculty of the department begins now. Even if the department succeeds in maintaining a full roster of faculty, there is risk that a sudden transition from a mainly-senior to a mainly-junior faculty may occur, with attendant problems for leadership. The present faculty and Dean Somerman are keenly aware of this issue. The recently completed 5 Year Plan of the department lists some intelligently chosen areas for future development. The number of areas chosen (7) maybe overly ambitious, and the path to achieving success in development in some areas is clearer than others. The plan for developing in areas linked to bioengineering stands out as having particularly strong potential, and is well on the way to developing into a core strength.

- 4). The faculty of the department has an excessively burdensome service teaching load. This onerous responsibility saps faculty time and energy available to deal with the preceding issue, and will be an impediment to recruiting faculty to replace those who retire. Although the department of Oral Biology does not have formal responsibility for the MSD program, it shoulders a disproportionate share of the teaching load of this program. This activity is not central to the goals of the department. In addition the need to cover a number of broad disciplines in service to the dental program, requires faculty with diverse expertise. This limits the current ability of the program to develop critical mass in emerging areas of interest.
- 5) It is not clear that the MS in Dental Hygiene Education program belongs in the portfolio of responsibilities of the Oral Biology department. This program is more closely aligned to the expertise and interests of the faculty of clinical departments in the School of Dentistry, and represents a distraction from the PhD and MS degree programs, which the Oral Biology Department is uniquely capable of directing.
- 6). The adjunct faculty, although playing a strong positive role in training of students in the Graduate Program in Oral Biology, are not included in any formal way in the decision making process within the graduate program, and displayed a lack of awareness of the workings of the graduate program.
- 7). The majority of the students of the graduate program are international students. Although this characteristic has both positive and negative features, realistically the situation is unavoidable, and reflects similar trends in competing programs at other US institutions. The situation creates one particularly severe problem – international students cannot be supported by Federal training grants. The graduate program struggles with finding means to provide adequate stipends for these foreign students. Since a federal training program is currently available, it of course also goes without saying that finding new and innovative efforts to recruit U.S. citizens and permanent residents should continue as a major goal of the program 8). The length of the program leading to the PhD is excessive – students commonly require 7 years to complete the program. The Oral Biology program is out of step with similar graduate programs in the School of Medicine and elsewhere that generally have eliminated the Preliminary Examination from the requirements of the PhD program in an effort to shorten time required to complete the program.
- 9). Although students in the graduate program benefit from close scientific interactions among faculty and adjunct faculty of the Department of Oral Biology and other investigators in the School of Dentistry, they appear largely ignorant of available intellectual resources associated with neighboring graduate programs in the School of Medicine.

Recommendations of the Review Committee to strengthen Research, Education and Funding of the Department.

The Review Committee makes the following recommendations, which are loosely tied numerically to the issues listed above:

- 1) Dean Somerman and faculty associated with the graduate program need to engage in a conversation leading to identification of a mechanism by which adjunct faculty of the Department of Oral Biology who benefit from the graduate program may contribute to funding the administrative costs of the graduate program.
- 2) Dean Somerman and the Provost need to be aware that it may be necessary to allocate as many as four additional faculty positions (FTEs) to the Department of Oral Biology, at least on a temporary basis, to ensure stability and continuity of scientific leadership in the department over the next five to ten years. The importance of the success of this graduate program for the School of Dentistry and the University as a whole is sufficiently great to merit this substantial investment.

- 3). It is recommended that a larger proportion of the responsibility for teaching of core courses of the M.S.D degree be gradually transferred to faculty of clinical departments.
- 4). It is recommended that the MS in Dental Hygiene Education be allied with the MSD degree program, rather than with the PhD program in Oral Biology. The new NIDCR "Practice-Based Research Initiative" represents a timely mechanism for providing scholarly opportunities that would benefit a more clinically oriented program for the MS in Dental Hygiene Education.
- 5). In recognition of the growing role of adjunct faculty in training students in the Oral Biology graduate program, adjunct faculty representing various departments affiliated with the graduate program should be added to the Steering Committee of the program. This will more formally acknowledge that the graduate program serves the entire School of Dentistry and the University, rather than the Department of Oral Biology alone.
- 6). The self-study document has requested that the Graduate School award several teaching assistantship positions to the Graduate Program in Oral Biology. The review committee agrees that such positions are warranted academically by the nature of the teaching load of the department, and award of such positions would lighten the excessive teaching burden of the faculty of the department, while greatly improving the capability of the department to provide adequate stipends for its students. However, recognizing the dearth of availability of such assistantships, the graduate program is urged to seek creative alternatives for funding such teaching assistantships, as both graduate student training and faculty work-load would benefit from such positions.
- 7). To shorten the time required to complete the PhD degree in the Oral Biology program, it is recommended that the requirement to pass a written Preliminary Examination be eliminated. Shortening the time required to complete the program is desirable for all students, but is particularly important for the success of the DDS/PhD program.
- 8). The Graduate Program in Oral Biology should make a stronger effort to forge intellectual bridges with faculty outside the School of Dentistry, and to introduce students to relevant intellectual resources, such as journal clubs and special interest clubs that are mentored by faculty outside the School of Dentistry.