



UNIVERSITY OF WASHINGTON

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*School of Dentistry*  
*Department of Oral Biology*

October 17, 2005

Dear Members of the Graduate School Council,

This letter constitutes the Department of Oral Biology's response to the report of its Graduate Program Review Committee. It is organized with the same structure as the Committee's report but consists of two sections. In the first section we make minor corrections and update the Introduction, Overview and Findings of the report. In the main second section we address the enumerated suggestions and recommendations of the Committee.

The department thanks the Committee for its efforts and for the laudatory findings. We especially appreciate that they recognize this "is the only PhD degree program in the School of Dentistry, and that 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." The department feels that the graduate program, and especially the PhD program, is the instrument by which the faculty of the School and of adjunct departments can have a major impact on the future of dental education as well as on the dental research effort of this nation.

**Section I. Miscellaneous corrections and updates to the final report.**

1. A minor correction in the Introduction section.

The third sentence states "During the site visit of May 8-10, 2005 the full committee engaged in interviews including individual meetings with ...the present Dean of the School of Dentistry, ...". Dean Somerman would like to have the phrase "(by phone)" inserted after her listing because she was out of town during the site visit and spoke with the committee by phone.

2. Additional information for the Overview and Historical Background section.

In terms of background information, the Review Committee is correct that over the last decade, the yearly enrollment in the PhD program was about 10. However, the yearly enrollment in the Masters programs was about 2.3 students, and we awarded 6 MS degrees and 4 MS Dental Hygiene degrees in the last decade. Also, we had four individuals receive the PhD degree this last year for a total of 13 PhDs awarded in the last 10 years (2 completed their degrees in June, just after our review in May 2005).

## **Section II. Responses to the enumerated suggestions and Recommendations of the Review Committee.**

Suggestion 1. Name Change. The department discussed the possibility of changing the department name to one “that encompasses the excellence of the multidisciplinary efforts in the Department” as suggested by the Review committee. The faculty had previously discussed a name change and agrees this would be beneficial. The department approved the name Department of Oral and Craniofacial Sciences, however this name was not well received by other departments in the School. Instead, we are seeking a name change for our graduate program to the Multidisciplinary Program in Oral and Craniofacial Sciences. This name more explicitly reflects our role as the PhD program for the School of Dentistry and not just the Department of Oral Biology. We are still considering a possible departmental name change.

Recommendation 1; Suggestion 2. Small Core Faculty group. The Review Committee notes that the small size of the core faculty raises the potential for fluctuations in research grant funding that could undermine the graduate program. Both the department and the School have recognized this possibility for some time and have worked to counter it by increasing the number of faculty who support the department’s graduate program. This has been achieved by increasing the number of adjunct faculty from other Schools who are interested in dentally-relevant research and so become affiliated with the graduate program; and by the recruitment efforts by our Dean to hire faculty who have both the PhD and DDS degrees for faculty positions in clinical departments (see Recommendation 2 below).

The department also discussed with Dean Somerman the Review Committee’s suggestion that adjunct faculty or their home departments contribute towards financially supporting the Oral Biology graduate program. Both we and Dean Somerman appreciated the intent of this recommendation, but we both also felt this was not a viable recommendation for two reasons. First, the adjunct faculty already make a significant financial contribution to the graduate program by supporting the graduate students who work with them during research rotations or longer term projects. For a graduate student appointed as a Research Assistant on a grant, the cost includes a stipend (about \$21,000), tuition (about \$10,000) and research costs (about \$8,000) for a total of about \$39,000 per year. Other students receive lesser amounts depending on the grant resources of their mentors. These costs constitute a significant expenditure and support for students in our program. Second, more than half of the adjunct faculty are from departments in the School of Medicine, and therefore are beyond the authority of the dean of the School of Dentistry to effect fiscal charges. Moreover, only a small number of faculty from a given department are involved in the Oral Biology graduate program, so none of the departments would likely see a compelling reason to fiscally contribute to the administration of this program. For these reasons, it is unrealistic to expect that the Oral Biology graduate program can receive

further financial support from its adjunct faculty or from their home departments. The adjunct faculty make an important intellectual contribution and a very significant financial contribution towards sustaining the graduate program in Oral Biology.

Suggestion 3. Faculty positions and retirements. The department agrees with the Review Committee that it must now begin to plan for future faculty retirements. In fact, this planning process has already begun and details of the plans are given below (see Recommendation 2, i). Major elements of the planning include: that an effort will be made to retain all retiring faculty FTEs in the department, that funding should be secure for current research faculty who make important contributions to the department, and that oral cancer will be the next research area to be developed in implementing the department's five year plan. A likely candidate with strong research support and teaching skills has already been identified to be recruited to head this latter initiative, but the department is still lacking the FTE necessary to initiate this recruitment plan. This plan could be initiated immediately if a temporary FTE were allocated to the program as suggested by the Review Committee.

Recommendation 2; Suggestion 3. Faculty positions. We have also discussed with Dean Somerman the Committee's recommendation that additional faculty positions be allocated to the department in support of the graduate program. We have been informed that Dean Somerman currently has no positions to allocate to the program. However, Dean Somerman and the School have taken several steps to stabilize or to increase the number of FTEs supporting the Oral Biology graduate program, thereby strengthening the long term stability of the School's PhD program in Oral Biology. These steps include:

i) Dr. Somerman has assured the department that a strong research faculty, strong research programs and a strong PhD program are a priority for the School. With her ongoing support, the Oral Biology graduate program will remain strong and stable in the long term. In the short term, Dr. Somerman recognizes the possible impact the future retirement of senior Oral Biology faculty could have on the stability of the graduate program, and she promises to make every effort to support the department so retiring faculty can be replaced with individuals with well supported research programs. As noted by the Review Committee, these new faculty need to be appointed in the Department of Oral Biology because salary recapture and indirect costs funds from grants of faculty appointed in other departments are not available to help cover the costs of running the PhD graduate program in Oral Biology. Such cost-covering funds are only generated from grants to faculty with appointments in Oral Biology. The faculty retirement issue is especially important and relevant because a number of retirements of current leaders of the graduate program will likely occur before the next graduate program review. One change that will occur in the immediate future is that Dr. Beverly Dale-Crunk will relinquish her role as Graduate Program Director in September, 2006, but will remain on in a 50 per cent research position for several years so her current

students can complete their training. While it will be nearly impossible to replace Dr. Dale-Crunk with an equally skilled individual, it will be vital to fill this crucial position with someone who is familiar with the history, content and goals of the graduate program, who knows the students, and who is as devoted to preserving and strengthening the program as past Graduate Program Directors.

ii) The clinical departments of the School are striving to enhance faculty with research activities in their departments and therefore in the School and in the graduate program in Oral Biology. Orthodontics (Dr. Susan Herring, PhD), Restorative Dentistry (Dr. Werner Geurtsen, DDS, PhD), Pediatric Dentistry (Dr. Rebecca Slayton) and Periodontics (Dr. Richard Darveau, PhD) have made such appointments. It should be recognized that the allocation of an FTE to support departmental research is made at the expense of the department's clinical program, and constitutes a considerable cost for most clinical departments because of their small total number of FTEs.

iii) Dean Somerman has also implemented a long-range plan to effectively increase the number of School FTEs that support the Oral Biology graduate program. This plan consists of appointing individuals with both DDS and PhD degrees to fill open faculty positions in all departments. This will result in a faculty with the specialized dental skills and backgrounds needed in the clinical departments, and the research skills and perspective needed to increase research activity in the School, thereby supporting the School's PhD program. These individuals will have appointments in both the clinical departments and in the department of Oral Biology. A number of School of Dentistry faculty appointments already fit this plan. These include: Dr. Hai Zhang, DMD, PhD; (Restorative/Prosthodontics); Dr. Rebecca Slayton, DDS, PhD; Dr. Tarja Kaakko, DDS, MSD, PhD (both in Pediatric Dentistry); Dr. Douglass Jackson, DMD, MS, PhD (Oral Medicine); Dr. Frank Roberts, DDS, PhD; Dr. Martha Somerman, DDS, PhD; Dr. I-Chung Wang, DDS, PhD (all in Periodontics); Dr. Anne-Marie Bollen, DDS, MS, PhD (Orthodontics) and Dr. Douglas Ramsay, DMD, PhD, MSD (Public Health Sciences).

In summary, while the Department of Oral Biology would welcome receiving additional FTEs to expand the scope and stability of its graduate program, we recognize current financial realities and are confident that the above strategies will increase the number of School-wide FTEs that support the Oral Biology PhD programs.

Recommendation 3; Suggestion 4. Teaching. Despite the Review Committee's expressed concern, the department does not feel that it has an excessively burdensome service teaching load for graduate programs, although this observation does apply to several faculty members involved in teaching courses for undergraduate dental students.

Teaching for the PhD curriculum will obviously need to be maintained and possibly expanded in the future with a greater scope of elective courses involving adjunct faculty. Teaching in support of the MSD clinical specialty curriculum is also important and

beneficial for the department. These courses form the Basic Science Core Curriculum for the School of Dentistry MSD clinical specialty programs, and were developed over the past decade in response to two influences: (1) the recommendation from the previous Oral Biology graduate review that Oral Biology be more integrated into the School of Dentistry, and that a better rapport be established with clinical departments so Oral Biology could influence the “culture” and attitude of other dental school departments towards dentally relevant research; and (2) the recommendation from previous ADA reviews of the graduate clinical specialty programs that more extensive basic science training be incorporated into the clinical training programs. The resulting courses not only fulfill these directives, they also form a groundwork of basic science knowledge that is fundamental to all of clinical dentistry. Consequently, these courses also contribute to the Oral Biology PhD program and are taken by PhD students as their basic coursework in oral biology topics.

In contrast to the above, teaching in the DDS program is viewed as excessively burdensome in several instances. Steps are being taken to reduce these burdens. Three individuals in particular have a burdensome teaching load: Dr. Richard Darveau directs three courses in microbiology and oral microbiology; Dr. Tracy Popowics directs two courses and teaches in a third course on oral histology, development and function; and Dr. Sue Herring directs or participates in four courses on gross anatomy, histology, development and function. The following plans should reduce the teaching loads for Drs. Darveau and Popowics. Dr. Darveau is seeking to eliminate one of his dental student courses by combining it with another course. If this is successful, Dr. Darveau’s load would be considerably lightened. Dr. Popowics would be greatly aided by a teaching assistant or by assistance from additional faculty. To this end, the department has hired a part time faculty member, Dr. Susanne Jeffrey, who is an expert on histology, oral histology, development and function. Dr. Jeffrey and several faculty from clinical departments will take a significant portion of Dr. Popowics’ teaching load in the coming years, so Dr. Popowics can fulfill the requirements for a K22 research career training award she received this year. Dr. Herring’s teaching load was increased this year by the Medical School’s decision to teach gross anatomy to medical and dental students in a 5 week period with 7 hours of lecture a day, for 4 days per week. This proved to be excessively burdensome for Dr. Herring as she also directs three graduate courses, and she is seeking relief from this amount of teaching next year. It is hoped that Dr. Jeffrey and/or other faculty will be able to provide teaching support and relief for Dr. Herring.

Recommendation 4; Suggestion 5. MS for Dental Hygiene Educators. Our department is open to negotiation regarding the departmental home for the current Oral Biology MS for Dental Hygiene Educators program. The Review Committee noted that this type of student is not equivalent to our PhD students and may detract from our emphasis on the PhD program. However, these students do take Oral Biology graduate level courses, and are strongly motivated towards a teaching career. In fact, as noted in our program

overview, nearly every graduate of this program is currently teaching, doing research or is an administrator in a Dental Hygiene program in this state or in another state. These students generally take oral biology courses with PhD students, and some of these students do a research project in labs with PhD students. The Oral Biology courses they take include oral histology and development, gross anatomy and/or oral pathology. Training in these basic science areas of dentistry constitutes the strength of the current program; it produces graduates who can teach these and other basic science topics in dental hygiene programs. No matter where the program is housed, there will likely be applicants to this program who will want this type of basic science training. Consequently, even if the program is administered in another department, the teaching load for our faculty will likely be unchanged. Moreover, if the students want a laboratory research experience (as many do), they may do research with departmental faculty members. Such a research experience would probably add to their teaching background because it will give them an appreciation for how research leads to new knowledge, and also an appreciation for the limitations of current knowledge. This will also make them more knowledgeable consumers who will be less susceptible to naively accepting the claims of representatives from various companies with clinical products.

Reviewers should also be aware that changing the departmental home of the program may change the character of the program. For example, it has been suggested that the program be housed in Dental Public Health Sciences, which is strong in epidemiological and public health studies. If the program were moved to that department, it would be reasonable to expect that the training emphasis would be in their areas of strength. Consequently, future graduates of the program may teach public health related epidemiology based courses, or advanced dental hygiene clinical courses. Such a change would be inconsistent with the reason this program was implemented over twenty years ago; which was the need for individuals capable of teaching the didactic basic science courses (oral histology and development, gross anatomy and oral pathology) in dental hygiene programs through out this state. Prior to that time, the material was taught either by dentists on a part time basis, or by members of the School of Dentistry faculty on an as-needed basis. The current program was implemented in recognition of the need for trained teachers in these areas, and the program has been successful in supplying this type of educator. Future loss of such educators would again result in a need for a program to produce dental hygiene basic science educators.

Recommendation 5; Suggestion 6. Greater role for adjunct faculty. The department agrees adjunct faculty should have more interactions with the department. We specifically agree with the recommendation that an adjunct faculty member should be added to the Graduate Steering Committee, which would increase membership from four to five. The adjunct faculty member would have full membership privileges consistent with our proposed name change for the graduate program. In addition, we will invite adjunct faculty to develop elective courses on their topics of interest that would be open

to our students. Also, adjunct faculty giving specialty courses in other departments will be encouraged to inform our department so a list of such courses could be distributed to students. We also note that we initiated Oral Biology Research Day last year to increase interactions between Oral Biology faculty and graduate students with adjunct faculty, and that adjunct faculty have been active participants in this event. The resulting interactions have resulted in contacts between adjunct faculty and students that may lead to research rotations and collaborations. Finally, the department will also attempt to group faculty meeting topics so adjunct faculty could attend those meetings dealing with the graduate program.

Recommendation 6; Suggestion 7. Recruitment and student support. The department agrees there is a need to recruit more US students. The Review Committee correctly recognized that this is not simply a local problem but a national pattern affecting all dental schools. We initiated the new DDS/PhD program in which trainees receive considerable financial aid with the hope of recruiting 1-2 US students per year into this program. It is hoped that elimination of education-related indebtedness will encourage these trainees to pursue careers in academia following completion of the program. Two new ideas will be pursued this year for recruiting students into this program; first, to focus recruiting efforts in tandem with those for the Medical Scientist Training Program as an alternative for students interested in MD/PhD training, and second, to be more aggressive about contacting predoctoral programs at universities around the country.

In addition, there is a need for mechanisms to support our excellent international students. We appreciate that the Review Committee recognized our program's need for teaching assistantships, and are hopeful at least one will be made available to the department. We are also seeking other funding mechanisms for these students.

Recommendation 7; Suggestion 8. Preliminary exam and time to PhD. The department had been considering eliminating the Preliminary Exam as a way to reduce the time to the PhD degree. The recommendation from the Review Committee that the Exam be eliminated provided the final impetus for taking this action, and the Exam was eliminated in Summer of 2005. This decision affects students who entered the program in 2003 or later. In addition, the Graduate Program Director is strongly encouraging students to form their Advisory Committee early and to proceed with their General Examination as soon as possible. The department recognizes the need to reduce the length of the PhD program, as well as the DDS/PhD program, and will strive to find ways to decrease the training period.

Recommendation 8; Suggestion 9. Student interactions with other departments. The department appreciates the Review Committee's suggestion that our graduate students should be aware of opportunities to interact with students and faculties in the Medical School. The Review Committee has provided the department with a list of journal clubs

in Medical School departments, and this list has been forwarded to students and faculty of our department with encouragement that this is an effective way of interacting with those outside the department who might serve as excellent resources. It should also be recognized that the department has historically worked to make students aware of research activities and opportunities in other departments and Schools. For example, the department assembles a list of seminars scheduled through out the Health Sciences each week, and distributes this list both electronically and in hard copy to all departmental members. This list is entitled "At A Glance" and has been circulated for many years. The department also requires that students enroll in a number of Molecular and Cell Biology Program courses, so they will interact and compete with graduate students and meet faculty from School of Medicine basic science departments. The Review Committee's comments have alerted our students to the possibility of directly approaching these faculty with questions or topics of mutual interest. Students are also encouraged to have faculty from outside the School of Dentistry on their PhD advisory committees. Our faculty also interact with faculty from other departments via joint and adjunct appointments (Dale-Crunk, Herring, Darveau, Watson), research collaborations (essentially all faculty), and through affiliation with the Molecular and Cell Biology interdisciplinary program (Dale-Crunk, Darveau). Finally, for the past several years the department has held a joint-seminar program with the Department of Bioengineering.

Departmental position. The faculty of the Department of Oral Biology feel that the review of our graduate program has highlighted the successes and advances of our program since the last review. The Review Committee has given us valuable suggestions and recommendations that we are actively pursuing to improve our graduate program in order to continue or even enhance our contributions to the scholarly and educational missions of the School of Dentistry and the University.

This response reflects the sentiments of the faculty of the department as expressed at the faculty meeting of October 11, 2005 and by emails received from regular and adjunct faculty in response to the initial draft.

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