Interdepartmental Memo
University of Washington
Department of Rehabilitation Medicine *BOX 356490*

January 12, 1999

To: John Slattery
Associate Dean, Academic Programs
The Graduate School
Box 351240

From: Marjorie E. Anderson, Ph.D. Marjorie E. Anderson
Chair, Pathobiology Graduate Program Review Committee

Subject: Final report of the committee

Attached is the final report of our committee. All members who participated in the review concur with this report. Professor Kocan, who was called out of town, did not participate in the site visit and chose not to contribute to the report.

Pathobiology Review Committee:

Professor Marjorie E. Anderson, Depts. of Rehabilitation Medicine and Physiology and Biophysics, Chair
Professor Daniel Luchtel, Dept. of Environmental Health
Professor Magdalene So, Dept. of Microbiology and Immunology, Oregon Health Sciences University
Professor Priscilla Wyrick, Dept. of Microbiology and Immunology, University of North Carolina at Chapel Hill

Review of the Graduate Programs in Pathobiology
November, 1998

I. Executive summary

A. Recommendations

The Committee unanimously recommends that continuing status be granted to both the Ph.D. and the M.S. degree programs in Pathobiology. The Committee also encourages the department to continue to explore ways in which the MS program could be modified to accommodate the needs of Public Health laboratories and the biotechnology industry.

B. Summary of major strengths

- The Department of Pathobiology has successfully defined its identity and has proved that its mission is clearly different from those of other departments at the university. Faculty from both within and outside of the department perceive this uniqueness.

- Dr. Kenneth Stuart, the highly energetic and entrepreneurial chair of Pathobiology, clearly is dedicated to the development of both his faculty and of the graduate program. He has made great strides in developing the department in the face of minimal fiscal and space support from the University.

- Newly recruited faculty have strong research programs, and more faculty have obtained extramural funding that is sufficient to support graduate students who work in their laboratories.

- As evidenced by measures such as the GPAs of entering students, the quality of students who enroll in the graduate program has increased during past two to three years.

- The faculty have taken very seriously the importance of a high quality graduate program. They have worked hard to develop a structure for the program, and the chair has taken additional steps to insure quality in the program. Since there are so few state salary resources, the development of this program has largely been a "labor of love".

C. Summary of major weaknesses

- Students are unaware when they apply that resources limit the labs in which they may work (or even do rotations) to a fraction of those listed as departmental faculty.

- Lack of reliable stipend support diminishes student morale and has meant that a small number of students has had to go without stipends.

- There also is an uneven distribution of faculty salary support from state funds, and faculty carrying major teaching and program administrative loads are not really compensated for these activities.

- There are no resources for out-of-town lecturers.

- There are insufficient resources for support personnel necessary to insure that grant proposals and budgets are prepared and managed well.

- The department is so underfunded that, after the faculty currently teaching undergraduate courses retire, the department should not be expected to continue these courses unless other resources can be found.

- On-campus space appears to be fully committed to active research programs, with no room for growth as these programs mature.

- The scattered locations of the faculty and their labs make interactions with faculty or other students difficult for the students.

- Although the current chair commits significant efforts to both his university and his off-campus responsibilities, an off-campus chair should not be considered the best working model.

II. Summary of the process

In preparation for the full committee site visit, the local members of the committee (Profs. Anderson, Kocan, and Luchtel) met once with Deans Landolt, Wahl, and Slatterly and Assoc. Provost Friedman. Profs. Magdalene So (Oregon Health Sciences University) and Priscilla Wyrick (University of North Carolina) joined Profs. Anderson and Luchtel during the on-campus site visit (Prof. Kocan was called out of town and could not participate). As detailed in the appended schedule, the committee met during the site visit with the departmental Chair and Vice Chair (also Graduate Program Advisor), the chairs of the Curriculum and Admissions committees, several departmental faculty at different ranks and based at different sites, graduates of both the Ph.D. and the Master's programs, and several current students, primarily in the Ph.D. program. They also met with faculty from the Departments of Microbiology and Laboratory Medicine who interact with faculty and students in the Department of Pathobiology.

The committee had been provided with the self-study document prepared by the department, the report and other materials that led to provisional authorization in 1989 for the Ph.D. program in Pathobiology, the results of a GPSS survey of a small number of current graduate students, exit questionnaire summaries for Master's and Ph.D. graduates, GSR reports from general and final exams, and, at the time of the site visit, the curriculum vitae of all core departmental faculty members.

III. Findings

Since the review that led, in 1989, to the provisional authorization of the Ph.D. program in Pathobiology, the department has gone through an initial period of turbulence and ineffective leadership, one year of stabilization by an acting chair, and an ensuing 2 years of development under the leadership of the current chair, Prof. Kenneth Stuart. It is apparent from discussions with all involved—administration, departmental faculty, faculty in other departments, graduates, and current students—that the nadir of the early '90s has been replaced by enthusiastic development of the department and the graduate program, especially the Ph.D. program.

Leadership

Prof. Kenneth Stuart, who was appointed departmental Chair in 1996, is clearly committed to the development of both the department and the graduate program. He has made great strides in the face of minimal fiscal and space support from the University. In spite of his dual roles—departmental chair and director of the off-campus Seattle Biomedical Research Institute (SBRI)-- he provides clear, involved departmental leadership. Even before he assumed the chairmanship, he led the development of what is now a well-structured graduate program. Since his appointment as chair he has recruited highly promising new faculty, has added a large number of very involved faculty from off-campus sites, has re-allocated departmental space to active, funded research programs, and has taken a very open approach to problem solving. He has encouraged open discussions at regular faculty meetings and has spurred his faculty to look beyond themselves and to work for the good of the department. As a result, the Pathobiology faculty have a positive, optimistic outlook and a cohesiveness around a shared sense of mission. Students, as well as faculty express this positive attitude.

Because Dr. Stuart's time is split between the University and SBRI, he has appointed Dr. LeAnn Campbell as Associate Chair of the department. The committee believes that this arrangement provides leadership continuity to the department and benefits its day-to-day functions. The committee is unanimous in wishing to commend Dr. Campbell for the effort and leadership that she has given as Associate Chair, Graduate Program Advisor, and as PI for the training grant in Pathobiology.

Although the current chair commits significant efforts to both his university and his off-campus responsibilities, the committee wishes to stress that an off-campus chair should not be considered the best working model. This arrangement was undoubtedly one contributor to the department's floundering during the tenure of the last regular chair. This epoch had disastrous consequences for the Pathobiology faculty and the departmental graduate program. Continued monitoring and timely action by the school's administration is crucial to insure both quality faculty and quality graduate programs.

Faculty Development

Several new faculty with active research programs have been added during the last 5 years. The research strengths of these new faculty complement and augment the research strengths of the department, and collaborations have increased among the faculty in the department, as well as with faculty in other departments and institutions. With Dr. Stuart's mentorship, faculty have been encouraged to write grants, to limit graduate students in each lab to a manageable number, and to develop appropriate collaborative initiatives in areas such as bioinformatics.

Because of the limited support staff, on-campus faculty have little assistance with grant preparation and management, however. This means that, when they have the option to submit grants through other administrative units that have better fiscal support services, they do so, and any indirect costs that are returned go to that unit, rather than to the Department of Pathobiology. Availability of an experienced grant management person, and the expectation that faculty with primary appointments in the department and on-campus laboratories submit their grants through the Department of Pathobiology, may result in some additional departmental funds.

Due to limited state resources for the department, many faculty are off-campus. Because of a formal affiliation between SBRI and the university, faculty based at SBRI have regular faculty appointments. This affiliation clearly is beneficial to the program, since SBRI provides release time for their university activities, as well as laboratory space and grant management resources. With a few exceptions, faculty at other institutions have either research or affiliate appointments, but even these faculty appear to be actively involved in the department and its graduate training.

The Committee is concerned that the limited on-campus space allocated to the Department of Pathobiology will limit the development of the research programs of its young faculty. Dr. Stuart has already redistributed space from faculty whose research programs have diminished. Although the committee did not tour the departmental facilities, it is our understanding that there is little space for growth of the programs of new faculty.

Graduate Programs

Major emphasis since the last review has been in the development of a high quality departmental Ph.D. program. It is clear that the faculty have taken this goal very seriously and have worked hard to develop curriculum, structure, and quality in the program.

The addition of new Pathobiology faculty with nationally recognized research programs has given the department visibility. This has, in turn, increased the number of applicants and the quality of those selected for admission. As an example, the GPA of entering graduate students has increased yearly over the last 3 years, although the GPA of the applicant pool has remained stable.

Applicants are attracted by the application of laboratory biology to problems of public health. Although some students feel that the public health emphasis is not as strong as they had perceived it would be, this did not seem to be a serious problem among current students or recent graduates. A recent survey by the Graduate and Professional Senate (GPSS) revealed significant discontent and dissatisfaction among the 9 current Pathobiology students who responded. It is likely that these results were skewed, however, because so few students (28%) responded, and 5 of these were first-year students who had completed only one quarter of the program. Nevertheless, the Pathobiology faculty are taking the students' comments seriously and are taking steps to remedy any real shortcomings of their graduate program.

Structural developments in the program include the development of a student handbook, establishment of a student "buddy" system, mandatory approval of all student committee appointments by the departmental chair, addition of laboratory rotations, and continuing curriculum development.

Although the department provides support for a limited number of laboratory rotation students, most laboratory rotations and the laboratories in which students may do dissertation work are restricted to those of faculty who can support student stipends and tuition, in addition to the expenses of the research. Even the two new training grants funded recently have only a small number of trainee slots. Student applicants enter the program with the belief that they can join the laboratory of their choice among all those listed. They discover only after they arrive that their choice of a graduate advisor is limited to those who have money to support them. The committee recommends that all graduate applicants be given a realistic list of advisors who it is expected will have the financial resources to support a student.

Because of the lack of reliable stipend support, a small number of Ph.D. students are entirely self-supporting. This should not be allowed in the future, as this inequity diminishes student morale. Furthermore, graduate stipends should be in the same amount for all students at the same level of training, without unequal supplementation.

Since the inception of the departmental Ph.D. program, fewer students have been accepted into the master's program, which is designed to provide advanced understanding of and experience with laboratory technique. Graduates of the master's program would primarily be expected to be employed in Public Health laboratories or in the biotech industry. The department is currently exploring the possibility of expanding the master's program under the auspices of the university's evening extension degree program. If the results of a current survey support the reports that our committee heard from departmental graduates now employed in local biotech firms, it would appear that this would meet a need in the state. Such a program change will require faculty resources, however, since the department currently has a very small number (approx. 4) of FTE positions funded for teaching.

Although the active laboratories of the off-campus faculty provide stimulating settings for the students' research, the scattered locations of the faculty and their laboratories limit student access to other faculty and other students. This decreases both their learning and their sense of cohesiveness and camaraderie. The scattered locations seem to be more of a problem for students than for faculty, who meet monthly for faculty meetings and communicate easily by e-mail on departmental business. Efforts must be ongoing to enhance student interactions with each other and with faculty at other sites.

Students are required to attend a weekly journal club that is led in rotation by different faculty from various sites, and there is a departmental seminar series. There are no departmental resources for out-of-town lecturers, however, and this means that a critical step in a student's development and training—access to national and international scientific figures—is missing. Serious consideration should be given to development of private funding – from program graduates or industry, for example—that would support a strong lecture series with opportunity for graduate students to interact with these visitors.

Placement of Graduates

The information given to the committee indicates that most graduates of both the M.S. and Ph.D. programs are finding appropriate placements in jobs or in further doctoral or postdoctoral training programs.

Departmental resources

A lack of resources for the Pathobiology graduate program was mentioned in the last program review as a serious shortcoming. This situation has not changed in the intervening 10 years, and the committee feels that it bears repeating. Although the graduate program and the faculty have both improved dramatically, this has been heavily dependent on a group of committed faculty who are not compensated for teaching. It is very unlikely that this level of commitment would be sustained indefinitely.

The department, as well as the entire School of Public Health, has leveraged minimal financial resources to build a large body of high quality faculty and graduate programs. While this management method was successful in the days of ample government funding, it is inadvisable in the present age of reduced budgets and programmatic funding initiatives at NIH. It is the opinion of the committee that the school cannot continue to operate in a similar manner without facing serious consequences.

Furthermore, there is an uneven distribution of salary support for Pathobiology faculty. Although it is understandable that significant resources must be committed to attract new recruits, the faculty carrying major teaching and administrative

loads should be compensated for these activities. The policy of partial tenurable salary (at most) makes it likely that eventually, outstanding faculty will seek employment elsewhere.

According to Dean Wahl, it is proposed by the accrediting agency for the professional Master's of Public Health (M.P.H) that molecular biology training be one of the core areas available for students in M.P.H. programs. The strong molecular biology programs in Pathobiology will be an important element for the School of Public Health and Community Medicine to meet these accreditation requirements. This will require additional resources, however, to provide required courses for MPH students.

Currently, a small number of senior faculty who are not active in research and who hold a significant portion of the department's state FTE support are teaching undergraduate courses that have been very attractive to undergraduates on campus. While this may enable these faculty to make significant contributions, the department is so underfunded that, unless more resources are provided, it should not continue to provide undergraduate courses after the retirement of the current faculty who teach them.

The lack of central departmental financial support for graduate students also makes the students very insecure. Although Dr. Stuart has attempted to accumulate departmental resources to partially support lab rotation time during the first year, the placement of students for lab rotations is largely dictated by who has funds, even though it is unlikely that rotation students will make significant contributions to work to be done on funded grant projects. When faculty are so dependent on these same grants for most of their own salaries, this makes it impossible for some faculty to accept students.

The department offers courses and a Master's degree program that are attractive to other departments of the University, to the local biotech community, and to Public Health laboratories. Currently the department is considering modification of the curriculum for the Master's to one that would offer courses at times compatible with full-time or part-time employment. The committee is convinced that this would be worthwhile, as these initiatives would be of benefit to the local economy. We also are convinced, however, that these initiatives can be carried out only with the commitment of additional resources.

Acknowledged 12/11

THE UNIVERSITY OF NORTH CAROLINA
AT
CHAPEL HILL

Department of Microbiology and Immunology
The School of Medicine
FAX# 919 962-8103
Office# 919 966-1191

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The University of North Carolina at Chapel Hill
Campus Box No. 7290, 804 Mary Ellen Jones Building
Chapel Hill, NC 27599-7290

Dr. John Slattery
Associate Dean for Academic Programs and Research
University of Washington
The Graduate School
200 Gerberding Hall
Box 351240
Seattle, WA 98195-1240

RE: Pathobiology Program Review, November 18 & 19, 1998
External Reviewer Comments

Dear Dr. Slattery,

I am in full aggrement with our Executive Review Committee Report.

You also requested the External Reviewers to make comments; I have only two comments to add.

1. The continued lack of "hard money" FTE support for faculty in Pathobiology, and many other University Departments, is appalling! For a state-supported University not to provide at least O.5 FTE per faculty is a travesty! Since the administration mantra is that this continued plea falls on deaf ears as far as state legislators, perhaps it is time for the University Administration to take a stand on this position. It is incredible to this Reviewer that the University of Washington expects tax payers in other states to support the education mission of the state of Washington!

2. There is not/was not/should not have been an "identity" problem for the Department of Pathobiology. My view is certainly influenced by having been at a University with a Department of Microbiology in the Medical School, of which I am a member, and microbiology and parasitology and virology research also being conducted in the Department of Parasitology and Laboratory Medicine in the School of Public Heath -- whose mission was very similar to that of Pathobiology. The amount of energy, time and effort expended in the 1988-1989 review on this perceived crux issue was, in my opinion, unnecessary and the seeming result of conflicts of personality and territory versus mission.

Priscilla Branch
Professor