

## RESPONSE OF THE DEPARTMENT OF MICROBIOLOGY TO THE 10-YEAR REVIEW COMMITTEE REPORT

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With review and input from the Faculty of Microbiology

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In January of this year, the Department of Microbiology prepared a Self-Study report for its 10-year external review as mandated by the University. This report identified problematic issues and put forth the following: "our current focus (is) on developing our research programs through multiple faculty recruitments. The next phase . . . will be to create equitable teaching responsibilities throughout the department and with the participation of our joint, adjunct and affiliate faculty."

The Review Committee report largely echoed these goals, focusing much of their emphasis on the lack of course offerings in our graduate program and the need to change the attitude that many faculty have towards how teaching is viewed, valued, and rewarded. The lack of participation of many of our faculty at the undergraduate and graduate level was also noted. We are happy to report that the "next phase" began early last summer following a hectic year of recruitment. Indeed, many of the recommendations found within the Review Committee report have been implemented or are currently being discussed in committee.

In the following paragraphs we will review where we stand on the concerns and recommendations provided by the Review Committee, and provide clarifications when needed. Since many of the issues cited in the Committee's report are interrelated, some information overlap in our responses will be evident in the various sections of this report.

### 1) Recommendations made in the 1986 Review and Comments by the 2000 Review Committee.

- a. Hire one or better two, senior investigators in microbial pathogenesis.

**Response:** As noted in the review, this was implemented with the hire of Drs. Mullins and S. Miller. However, we subsequently lost Professors Stephen Lory (bacterial pathogenesis) to Harvard University and Julie Overbaugh (viral pathogenesis) to the FHCR, although her academic appointment remains within Microbiology and she continues to contribute to the research mission of the department by training graduate students. The department has undertaken two initiatives that have the potential to enhance our senior leadership in the area of microbial pathogenesis. Through the joint efforts of the Department of Microbiology and Laboratory Medicine we are finalizing the recruitment of Dr. Ferric Fang, a senior bacterial pathogenesis investigator from the University of Colorado Health Sciences Center. In addition, a

faculty search committee has been appointed and a search is underway to recruit another faculty member of open rank in the area of bacterial pathogenesis. With the recent hire of Dr. Lalita Ramakrishnan at the Assistant Professor level, and upon successful completion of the two ongoing searches, we will have 3 new faculty members in the area of bacterial pathogenesis. An additional faculty position remains open to replace Associate Professor Virologist Timothy Wong, who retired in the past year.

b. Remodel the G and H wings and develop space for new investigators.

**Response:** The School of Medicine has proposed major renovation of the H-wing of the Health Sciences Center prior to a number of recent biennial budgets. However, this project has always been demoted from the top priority by the time final funding requests were prepared by the University. As part of Dr. Mullins' agreement to serve as Interim chair 3+ years ago, the department secured funds for minor renovations to the 3<sup>rd</sup> floor of the F, G, H and I wings. As part of the eventual chair package provided to Dr. Mullins, additional funds were provided for more substantial renovation of these wings. At the current time, minor improvements to major renovations are nearing completion in four F wing labs (for Associate Professors John Leigh and Stephen Moseley and Research Assistant Professor Evgeni Sokurenko). Renovation of the G wing has been substantially completed along the South side (administrative offices), and major renovation is slowly occurring on the north side (for Associate Professor Kelly Hughes and administrative offices).

Major renovation of the H wing has been in the planning stages for more than a year (for Professors Nester and Clark, and for new faculty recruitments). This delay has been due to the typical slowness of the UW capital projects group. However, the delay is also due in part to the uncertainties over what new space will be acquired for department use off campus, whether we would retain space in K wing and on the 2<sup>nd</sup> floor of the I wing, and the likelihood of the eventual choice of the H wing overhaul for major renovation funds from the University budget. By recent agreement with the Dean of Medicine, we will retain office space on the 2<sup>nd</sup> floor of I wing and laboratories and offices on the 4<sup>th</sup> floor of K wing, only until such time suitable alternative space becomes available in the G wing and at the new South Lake Union site, respectively. Minor renovations are being planned for the South side of the H wing to accommodate the faculty member to be hired in our ongoing search process, as well as an undergraduate student laboratory, and potential additional faculty hires.

2) **Improvement was requested on a number of fronts related to the departmental "culture," focusing on dismantling the unhealthy two-class system relative to teaching.**

- Define and improve how faculty responsibility for teaching at the undergraduate and graduate levels is distributed, viewed and rewarded.

- Every faculty member has a responsibility to teach. Affiliation with the Department should carry the expectation that the faculty member will contribute to the teaching mission of the Department.
- More thought should be given (at the Department and School levels) to rewarding those who effectively share this load.
- Increase the teaching loads of those not currently effectively engaged in teaching.
- Ensure that junior faculty recruits clearly understand that they will be expected to participate in mainstream teaching activities. Potentially, introduce a requirement for tenure that a junior faculty member successfully teach a major undergraduate course.
- Potential senior faculty appointees should be assessed for their leadership in teaching.
- The use of both full and partial FTE's and the introduction of the A and B salary components exacerbate the two-class system.
- Individuals such as Jim Champoux, cited as effective at combining effective teaching with a successful research program, generally feel that their efforts were under appreciated.
- The undergraduate degree program is beginning to suffer from neglect by leadership in the Department. No clear, long-term plan was evident for replacing the teaching contributions of Tim Wong and Marie Coyle.
- More leadership from the top is critically important in changing the Department's culture.
- Inadequate research faculty involvement in teaching should not be compensated by extension of Lecturer involvement.
- Lecturers should not teach an advanced undergraduate research laboratory course without research faculty participation.
- Specify how Biology 201 and Microbiology 444 teaching obligations will be met.

**Responses:**

- a) **Distribution of teaching responsibilities.** Improved distribution of our teaching efforts, along with expanding our course offerings, are the top priority of the department's efforts and are being pursued aggressively now that most faculty searches have been concluded successfully. Since each new tenure line faculty member is given a one-year teaching "holiday" prior to beginning their classroom teaching, it will be two years from the time we began searches before new faculty could assist our teaching effort. Thus, recruitment of several new faculty members was an essential first step towards meeting our long-term teaching needs. Dr. Mullins has made it clear to newly appointed faculty members that teaching participation is required and will be used as a basis for merit pay increases and promotion. In Autumn Quarter 2000, Dr. Mullins appointed a new committee, The Graduate Curriculum Committee, charged with not only reviewing the status of our graduate program, but recommending/making the necessary changes needed to improve course offerings of the program. The Graduate Curriculum

Committee is also reviewing faculty participation in our undergraduate and graduate courses, and examining ways to balance teaching at both educational levels (see below).

- b) **Leadership and teaching obligations.** Building and maintaining excellence in research and teaching in Microbiology is the fundamental drive for Dr. Mullins' participation as Chair of Microbiology. To lead changes within our departmental culture he has enhanced his own contribution to undergraduate teaching by assuming the teaching responsibility of Dr. Wong in Microm 445 (Medical Virology). Moreover, Dr. Champoux now has sole responsibility for Microm 450 (Molecular Virology), a course he previously co-taught with Dr. Wong. Dr. Mullins has also asked other faculty to contribute in their respective disciplines. As noted above, we are undergoing a systematic effort to enhance and even out the teaching responsibility of our entire faculty. Most importantly, in July of this year Associate Professor Jim Lara was named to the position of Associate Chair of Microbiology. Jim Lara is a highly motivated, highly regarded teacher with a firm grasp of the needs of the Microbiology teaching programs. One of his first responsibilities was to chair the newly appointed Graduate Curriculum Committee. Several significant changes and recommendation have already be made/proposed that will improve our graduate course offerings (see below). He will have primary responsibility for setting teaching assignments, including Bio201. Dr. Lara is also Chair of the Bacterial Pathogenesis Search Committee, and a member of the Appointments & Promotions Committee establishing appointment guidelines and responsibilities for joint, affiliate, adjunct, and research faculty rank positions in the department. We believe that by having one person, Dr. Lara, serving on several key committees this will allow us to address, coordinate, and make the meaningful changes required to improve the educational programs of the department. Lastly, we have been given assurance by Laboratory Medicine that Dr. Fang and a colleague will assume Dr. Coyle's responsibilities in Microm 444 (Medical Mycology and Parasitology). **Correction:** Dr. Mullins has had a continuing yet minor role in classroom teaching (amounting to 6-7 lectures per year over 4 courses) except for the year 1998-99.
- c) **Views of teaching.** The views our individual faculty members hold toward teaching have evolved independently in our minds over the years. Consequently, it is impossible to create an appreciation for its value without experiencing its positive impacts in our own developmental history as students and faculty. We have superb teachers among our Lecturers and tenure line faculty, so there are ample role models for this effort. As we have recruited new faculty to the department we have told each that they are expected to teach at one or more levels. As part of our comprehensive review of our course offerings, the Graduate Curriculum Committee and Dr. Mullins called for new course proposals from our existing and incoming faculty. We received 3 course proposals from incoming faculty in the areas of virology, mathematical, and structural

biology, and three proposals from existing (and currently "non-teaching") faculty in the areas of virology, immunology and molecular technology. On November 18, 2000, the Department submitted two new conjoint course proposals ("Molecular Evolution of Viral-Host Interactions," and "Survey of Technologies for Molecular Biology") to the School of Medicine for approval. The immunology course, Microm 447, is being re-activated from an existing course not offered for several years. This "Special Topic in Immunology" course will be offered Spring, 2001. Lastly, the Graduate Curriculum Committee is discussing ways to improve the graduate bacterial diversity course, Microm 530, and to offer a graduate course in microbial genetics. We are very pleased that improvements to our graduate course offerings have been accomplished in a short period of time, and that signs of changing the "culture" are evident. As we go forward we seek an equitable formula for the participation of all of our primary, joint, adjunct, affiliate, and research in our teaching mission. Some faculty, notably those off-campus, have a large fraction of the graduate students of the department, yet shoulder none of its teaching responsibilities. With Drs. Mullins, Katze, Bumgarner, Mittler and Sumudrala scheduled to move to the Rosen building at the South Lake Union site, most of our Virology faculty will be off campus. With the exception of Dr. Mullins, all of these members submitted course proposals, alluded to above, indicating their commitment to the teaching mission of the department.

As called for in the Review recommendations, we seek to implement a "formula" by which ALL faculty members participate in teaching on a continuing basis, and that continual involvement in teaching will become a prerequisite for promotion and mentoring graduate students. To this end, Dr. Mullins made new appointments to the department's Appointments and Promotions Committee. This committee has as its charge to review and develop guidelines on: How appointment nominations at the Adjunct, Affiliate, and Research faculty ranks will be evaluated; the criteria to be used to determine graduate faculty status; and the teaching responsibilities associated with each of these faculty ranks. The Committee's report will be discussed at a departmental faculty meeting in the near future.

- d) **Rewarding teaching.** Prior to becoming chair Dr. Mullins developed a financial model to begin to address the teaching and salary reward inequities that exist among our faculty. This model is being implemented on an individual basis after discussion with each faculty member.

First, faculty members with sufficient grant support are asked to fund a portion of their state salary beyond the 1-month previously contributed by all faculty. The recaptured amount is brought back for departmental use. Those faculty members with lower levels of grant support are not asked to fund any of their salary from grants. The recaptured funds have been put to various uses ranging from supporting general infrastructure to providing assistance to junior faculty (e.g., a technician's salary was funded in the Traxler lab for the year prior to her tenure decision) to reward faculty who have made outstanding contributions to the teaching mission of the

department (e.g., a portion of a recent increase in Jim Champoux's salary came from recovered departmental funds; Jim Lara's Associate Chair salary supplement comes from this source).

Second, faculty members with higher salaries are being given a smaller percentage salary increase each year. This has been used to fund a relatively larger increase to others who have experienced more acute salary compression and who also excel in executing the teaching responsibilities of the department.

Third, the installment of the A/B salary system has for the first time enabled us to offer competitive salaries to our faculty. While our formula is not perfect, the way we are using these salary components is helping to raise the salaries of our entire faculty. All faculty members are asked to maintain at least \$250,000 in annual direct cost grant support to fund participation in this program. Those that have done so have been able to substantially increase their salaries from the B component. This system is also used to reward faculty who excel in teaching, but who are unable to fund B components from their grants. As a result, both A and B components are used to fund annual salary increases. For example, to cover a 4% salary increase for individuals with substantial research funding, 3% would come from the State Line, with the remainder coming from their grants. The residual State Line funds are used to fund larger percentage increases for those who contribute to and excel in their teaching responsibilities to the department, but are not able to fund B component increases. In the end, this plan will not provide equal salary rewards for those without substantial research support, but they will have a substantially larger fraction of their salary from State Line. The department will continue to explore ways to reward excellence in this critical activity.

- e) **Role of Lecturers in the teaching mission of the department.** Historically and currently the primary responsibility of our Lecturers is to oversee the laboratory courses offered by the department. They have consistently done so in truly outstanding fashion, and represent jewels in the crown of the excellent undergraduate degree program we offer in Microbiology. Only one of our lecturers has had a significant role in an undergraduate lecture course (Anderson in Microm 301, a course for non-majors). Until recently, the decision to limit involvement of Lecturers in upper division lecture courses was based on the fact that all were Master level degree recipients. The faculty is in agreement that a greater rather than lesser burden should be placed on our tenure-line faculty to teach. However, our last two Lecturer appointments have been individuals holding Ph.D. degrees with demonstrated outstanding teaching skills while serving as Assistant Professors. Both were evaluated and hired with the thought that they could contribute to, and would excel in, the undergraduate teaching program if their laboratory responsibilities were not compromised. **Corrections:** First, with regard to employing our Lecturers in advanced undergraduate courses, Dr. Mark Chandler is the only Lecturer who has lectured in a 400 level course (Microm 442) which he did last year for the first time, and gave only two lectures. The

lectures he presented were similar to those he gave as a tenure line faculty in his former position. Second, the perception that tenure-line faculty are reducing their involvement with or are no longer interested in supervising undergraduate research students is incorrect. Our faculty remain committed to mentoring undergraduates in research projects. However, to augment the research experiences available to undergraduates, Dr. Chandler requested and received the endorsement of department to supervise undergraduates in a research setting, as he did prior to joining our faculty. The department agreed to provide laboratory classroom space on a year round basis. Tenure track faculty will assist in the experimental design and supervision of students as needed, and all supply costs are to originate from the individual research laboratories sponsoring individual studies.

**3) Several concerns and recommendations regarding gender issues were raised.**

- a. Julie Overbaugh and others before her were not offered tenure track appointments despite achieving international prominence.

*Response:* Dr. Mullins' goals for serving as interim chair were stated in a letter to Interim Dean John Coombs on March 2, 1997. In that letter a redistribution of FTE support was requested that would provide State Line support for Dr. Overbaugh. This request was denied, and Dr. Overbaugh left, without negotiation, before any state line positions became available.

- b. There was no female member on the past year's search committee prior to the late addition of Beth Traxler.

*Correction and Response:* Dr. Nancy Haigwood was a member of last year's search committee from its inception until she resigned for personal reasons unrelated to the committee's activities. At the time of her resignation the committee had decided upon the full set of nine individuals that were to be invited for an interview. Since the committee's work was largely completed, Dr. Mullins hesitated several weeks before appointing a new member. As concerns regarding gender bias surfaced, Dr. Beth Traxler was asked and accepted an invitation to serve as a committee member. At that point, Drs. Traxler and Denise Galloway were asked to review all female applicants that might merit further consideration. No additional names were added to the list of people to be interviewed. The current Bacterial Pathogenesis Search Committee has two female members (Drs. Traxler and Jane Burns from Pediatrics).

- c. The committee was told of examples of insensitivities to gender issues during the attempt to recruit Caroline Harwood.

**Response:** We are not aware of any gender issues relevant to Dr. Harwood's recruitment, other than the obvious sensitivity that would result from the fact that our initial recruitment was aimed at her husband. Furthermore, none of the examples provided to the committee was shared with departmental leadership, thus we are unable to comment on this issue.

- d. Integrate Drs. Linial, Galloway and Overbaugh more completely into the Department.

**Response:** This will be done. Dr. Linial currently serves on the important Microbiology Graduate Admissions and Policy committee. It is also likely that our Curriculum Review committee will recommend requiring substantive teaching in Microbiology courses by all affiliate faculty for the entitlement to mentor graduate students.

In summary, a number of efforts are underway to improve gender equality in our department and to provide female faculty role models for our students. The recent recruitment of Dr. Lalita Ramakrishnan will of course help in this regard. Nevertheless, we recognize the need to remain diligent in these efforts as we consider additional faculty recruitments. Opening up mentoring opportunities to our adjunct and affiliate faculty is another way in which we can enhance access to female faculty members.

**4) The link between FTE salary support and student instruction is being undermined. This fear is founded on:**

- a. The recent transfer of an FTE to the Primate Center

**Correction and Response:** Last year we originally set out to recruit three new faculty members as part of Dr. Mullins' chair package. Dr. Wong's retirement and the central role of Microbiology in the recruitment of faculty to the ATI advanced following formalization and implementation of this plan. Contrary to what was stated in the departmental review, Dr. Mullins neither contemplated nor transferred a Microbiology FTE to the Primate Center. The Primate Center did, however, offer to provide space and startup support to recruit a virologist to fill the Wong vacancy. The fact that the department had three positions to fill with substantial resources to fill them, the potential to hire several more faculty through a separate well-funded ATI fund, the department chose to move forward with a plan to hire a virologist with the assistance of the Primate Center. The commitment from the Dean was to provide salary but no startup package to fill this position. However, this search



ended without hire, and is on hold in the current year while we adjust to the growth of the department.

- b. The proposal to split the Lory FTE to support non-lecturing senior faculty.

**Correction and Response:** It is normal practice within the School of Medicine to return to the Dean all funds associated with a State Line position in excess of (currently) \$65,000. Since our department is in an expansion phase, Dr. Mullins asked for and received permission from the Dean to retain all of Dr. Lory's State Line that could be to be used to recruit his replacement and to use excess funds to support other faculty or recruitment efforts.

- c. A proposal to use partial FTEs to support Research faculty.

**Response:** The plan for providing partial State Line positions to Research and WOT faculty, while approved by the Dean, was not and will not be implemented.

5) The graduate program needs to be improved.

- a. The graduate recruitment process requires review.  
 b. Supervisory Committee meetings should take place annually.  
 c. The requirement for first-author papers should be reduced to one.

**Response:** The Graduate Admissions and Policy committee has met to discuss how graduate student recruitment can be improved, and how mentoring and monitoring of our students can be improved. The addition of new graduate courses to our curriculum will necessitate a re-evaluation of graduation requirements by the committee. **Correction:** The requirement for first-authored papers has and continues to be 1 paper.

- d. More active faculty participation in the department journal club is essential.

**Response:** Although attendance continues to be problematic, improved faculty participation has resulted following discussions with the faculty on this issue. Dr. Mullins will continue to make faculty journal club attendance a priority.

- e. The Curriculum needs an immediate overhaul (reinstate graduate level virology and biodiversity; strengthen parasitology and bacterial genetics; offer microbiology-centered UconJ courses; offer a

required Seminar in Microbiology course).

- f. The Graduate Admissions and Policy Committee should be more active in ensuring rigorous and flexible course requirements.

**Response:** Dr. Lara's Graduate Program Review committee is addressing these issues. Two new conjoint course proposals have been submitted to the Dean for approval (A graduate virology course entitled "Molecular Evolution of Viral-Host Interactions" to be offered Spring 2001, and a "Survey of Technologies for Molecular Biology" course Fall 2001). The graduate course on Evolution of Prokaryotic Diversity is being revised and will be offered in Fall 2001. Two additional course offerings are currently being developed ("Population Biology of Infectious Disease" by Dr. Mittler, and "Computational Structural and Functional Genomics" by Dr. Samudrala), and another, a graduate microbial genetics course, is in the early stages of discussion. We believe these new courses provide significant new course selections to our students, and help them meet the 6 credit conjoint minimum required for MCB training grant support in areas more directly related to microbiology. With these new courses, the Graduate Admissions and Policy Committee will need to re-evaluate graduate core curriculum requirements.

In summary, we recognize that the need for improvement of our graduate curriculum is real and is pressing. We are moving aggressively to address this need.

#### **6) Marginalization of faculty members from the department decision-making process**

**Response:** In some measure this is a problem of communication. To enhance communication Dr. Mullins has begun monthly luncheons with the faculty. These informal meetings will hopefully allow all faculty members to express their views and opinions on a wide range of issues vital to the mission of the department. These discussions are critical in helping us establish departmental goals and priorities, and how best to achieve these goals. Communication is a two-way street, if input is sought and not provided, the need for the decision does not go away but rather rests with those that have responsibility for the decision and those who care enough to provide input. So, all faculty members are strongly encouraged to attend and to participate. It is also hoped that the presence and participation of Jim Lara in departmental leadership will assist communication and further democratize the decision-making process.