Prepared for the UW Graduate School

# BACKGROUND OF REVIEW

In 2000, the Department of Microbiology was reviewed by a committee appointed by the Graduate School that made recommendations and suggested re-review in 5 years to monitor whether its significant recommendations had been acted upon. On March 24, 2009, the Graduate School again appointed a committee to review the Department of Microbiology comprising:

Bertil Hille, Professor, UW Department of Physiology and Biophysics (Committee Chair);

Celeste Berg, Professor, UW Department of Genome Sciences;

Elton Young, Professor, UW Department of Biochemistry;

Roberto Kolter, Professor, Department of Microbiology and Molecular Genetics, Harvard Medical School;

Harry Mobley, Professor and Chair, Department of Microbiology and Immunology, University of Michigan.

In May the committee received the 2009 Self Study report prepared by the Department Chair, Jim Champoux, and the previous (2000) Self Study and Responses prepared during the Chairmanship of Jim Mullins. The UW members met in a teleconference with the outside members on May 15, receiving their charge, an explanation of the process by Jim Antony, and Augustine McCaffery, and an oral report by Jim Champoux. The site visit was held June 1 and 2, 2009 and consisted of discussions with the Chair, department administrator, Student Advisor, faculty (including Instructors for undergraduates), postdocs, graduate students, and undergraduate students in about 25 sessions. It was followed by an exit discussion with the interested parties.

# THE MICROBIOLOGY PROGRAM HAS MANY OVERALL STRENGTHS

Microbiology is an essential discipline for modern society and science. Research in microbiology contributes to our understanding pathogenesis and the virulence of bacterial and viral pathogens and to understanding the ecology, cell biology, and evolution of bacteria and viruses. Training in microbiology prepares lab technicians, nurses, pharmacists, dentists, medical doctors, and research scientists for their profession. The UW Department of Microbiology has extensive strengths for which it can be proud and is commended:

- *World class faculty*. Many individual faculty members are well recognized and highly successful scientists. Several have received significant honors including three elected to the U.S. National Academy of Sciences.
- *Excellent undergraduate program*. The undergraduate program is attractive and serves a large and diverse student population. The degree program is praised by its present students and graduates. Lab Instructors and Student Advisors are dedicated, skilled, and invaluable.
- *Excellent graduate students*. The graduate students are dynamic and smart. Students say they accepted the UW offer over the competition because of the *esprit de corps* of the students and interactions with faculty.
- *High funding levels.* Grant income is in the top five in the nation.
- *J-Wing remodel.* During the next two years, two floors of new contiguous J-wing space will be remodeled for the majority of the faculty with spare space for future hires.

Much of the department will finally organize around this clear geographic center in attractive new quarters.

• *Stronger administrative organization*. The Chair has devoted extensive and serious attention to matters of management, policies, and services.

Several of these strong points are addressed in more depth in later paragraphs.

Because of these strengths, we enthusiastically recommend continuation of the highly successful undergraduate and doctoral degree programs.

# RESPONSE TO THE 2000 PROGRAM REVIEW

In 2000 the Graduate School organized a review of the Microbiology programs. That committee made a number of recommendations. Our committee was dismayed to learn how many of the recommendations had not been implemented in the interim, and that serious issues related to them are still pervasive. Since 2000, Chairmanship of the department changed in sequence: Jim Mullins, Jim Champoux (acting), Pete Greenberg, and Jim Champoux (current). So many changes of leadership, the stress while no resolution of the space problem was in hand, and the subsequent significant engagement in planning of unified research space may have slowed attention to the recommendations of the report. The 2000 committee proposed a rereview in 5 years, but the review was deferred for additional four years (a total of nine years) because no chair had been in place long enough to attend to the changes. We note the <u>previous</u> recommendations here with some commentary. Several of these topics are addressed in more depth in later paragraphs.

- Teaching
  - *"Two-class system."* The 2000 report expressed concerned about negative attitudes towards teaching, that teaching was distributed extremely unevenly, and that the need of the faculty to pay part of their salaries (B component) from grants seemed to give financial incentives to emphasize research dollars over teaching. Although the Chair is sincerely promoting the value of teaching and is engaging more faculty in teaching, all of the problems mentioned in 2000 remain severe today. Several faculty are highly dedicated and enthusiastic about their classes, yet there remains pervasive and explicit antagonism, angst, and mistrust about issues of teaching among many.
  - *Junior faculty*. The report urged that junior faculty be engaged in teaching from the beginning. Junior faculty indeed reported that they are expected to teach after a short grace period, as recommended.
  - *Leadership by example*. The 2000 report praised the Chair (then Mullins) for beginning to teach. We praise Dr. Champoux for continuing to set a strong example by teaching extensively now and throughout his long career.
- Concerns regarding gender

• Appointment, promotion, and recognition of women are still very modest today.

- Undergraduate Degree Program
  - *Participation by faculty*. In 2000, only a few individuals carried a large portion of the teaching load. The situation is perhaps partially improved now, but there is still a ways to go before there is broad participation by the entire faculty.
  - *Instructors and 400-level courses*. In 2000, concern was expressed that the Instructors should not be asked to give the required lecture courses in lieu of professional faculty. Currently the professional faculty do give those courses and the Instructors give only a few lectures as recommended.

- *Recommendations of a 1999 departmental undergraduate curriculum committee had not been considered.* This lack of follow-through may still exist. A curriculum committee had met more recently and performed a preliminary assessment, but did not accomplish its goals and currently is not active.
- Appoint an Associate Chair for Curriculum empowered to set teaching assignments. No appointment was made. There is a Curriculum Committee but it has accomplished little.
- Graduate Program
  - *Encourage faculty participation in journal club*. Students had the same complaint today.
  - *Monitor student progress*. This issue no longer seems a problem. Current students reported that they had met with their supervisory committees within 12 months and that they are well informed on the requirements.
  - *Curriculum needs immediate overhaul including a university-based graduate virology course*. Overhaul is still needed, and a university-based virology course is <u>promised</u> for next year (Katze).

## DISCUSSION AND RECOMMENDATIONS FROM THE 2009 VISIT

## UNDERGRADUATE EDUCATION

The UW Microbiology Department serves a large and diverse audience. Overall more than 2000 students receive microbiology instruction each year, the majority of whom are undergraduate students. The undergraduates represent an important community for the department. Approximately 50 undergraduates graduate each year with a BS degree in Microbiology. Microbiology courses serve many programs, including pre-dental, pre-pharmacy, pre-medical, Medical Technology, and other undergraduate science majors such as Biochemistry and Biology. The students who major in Microbiology go on to various programs and to advanced science training such as Dental, Pharmacy, and Medical school, as well as occupations such as Medical Technology, Biotechnology, and the brewing industry.

The undergraduate teaching program is monitored by a Departmental undergraduate Curriculum Committee chaired by Beth Traxler. The undergraduate laboratory courses are taught by four permanent Senior Lecturers, one of whom (Anderson) also teaches a lecture section of the non-majors Introduction to Microbiology (Microm 301) in the Spring and Summer quarters. They also occasionally give a lecture in the Microm 401 Intro course for Micro majors. The lecturers received rave reviews from both the undergrads who responded and from the faculty with whom they interact. A concern raised in the 2000 Microbiology Departmental Review that the lecturers might be over-extending themselves if they taught in the 401 course seems not to be a problem since they seldom participate in that lecture course.

The lectures in the Introduction to Microbiology (301 for non-majors, 401 for majors), and other undergrad courses, have been given in the past years by a subset of the faculty, several of whom (Staley, Nester, Lara) have or will be retiring soon. Their loss will have a major impact on these courses, particularly the large survey courses. Fortunately, at least one senior member of the Department, Jim Mullins, has stepped into the breach and will begin to make an important contribution to teaching one of these undergraduate courses in the future. With a little cajoling and some arm-twisting, it is hoped that one or two others will do the same. Otherwise there is a risk that the Department will come to rely more heavily on Senior Lecturers to fill the empty lecture slots for Micro 301 and perhaps even 401.

The Review Committee felt that the Senior Lecturers were, generally speaking, adequately prepared to teach the Micro 301 for non-majors, but that the Micro majors should be taught in lectures by regular full-time, research-oriented faculty members. In order to do so, the faculty members at the level of Associate Professor should be more fully integrated into the teaching program at the undergraduate level.

Another important aspect of the undergraduate program is the curriculum content, particularly of the courses for Micro majors. A curriculum review was mandated but was apparently not completed. A thorough review is in order and should be completed and presented to and discussed by the full faculty at a meeting devoted to this topic.

The undergraduate students majoring in Microbiology with whom we spoke felt that they had access to all the information they needed and that advising through Sarah Mears in the central office was thorough and effective. Most of these students worked in a Microbiology faculty research lab and felt that access to research was available to all those who desired such experience. We had letters from two previous Micro majors who expressed strong support of the department's teaching program and credited the department for their current positions as a Medical school student and a brewing company entrepreneur.

In summary, the undergraduate programs—both major, non-major and serviceoriented—are strong and thriving. Their past success has led to increasing enrollment and pressure to accept more students. This pressure will be exacerbated with future retirements dwindling the ranks of those teaching the undergraduate courses. The simplest solution to this bottleneck is to be sure that undergraduate teaching is delegated equitably among the faculty. It should be emphasized that teaching undergraduates can play a unique role in professional development. It can also foster departmental collegiality and of course it fulfills an important responsibility to the students of the University of Washington.

#### Synopsis of recommendations:

- A systematic review, involving all faculty members, of undergraduate course offerings is needed with open discussion of what is desirable and who will teach.
- Ensure faculty participation in undergraduate program through faculty understanding of the total department teaching mission.

#### **GRADUATE PROGRAM**

The Graduate Program in the Department of Microbiology is strong. It was ranked 11th in the country by US News & World Report (2007). In an exit survey of Ph.D. graduates from the Department of Microbiology and Immunology, the average satisfaction ranking was 4.3 of 5. When specifically asked about the "overall quality of the program", they responded with a 4.4 of 5. Currently there are 33 graduate students in 20 laboratories. Students graduate in an average of 5.8 years (typical of their peer institutions). In 2008, there were 147 applicants of which 30 were considered to have met standards for admission. To carefully regulate admission of only 5 students (for which the department has funds to cover in year 1), 12 offers were given and the remaining students were put on hold. Five students among the 12 accepted and matriculated. Funds for two students are provided annually by state-funded TA positions. Given the number of undergraduate courses with very high enrollment, the committee felt that this number of TAs was woefully inadequate and recommends that the university provide funds to cover a total of five TA positions. This would allow the recruitment of at least three additional graduate students who would be supported easily on faculty grants and training grants. The committee felt that given the high level of faculty grant funding (among the top

five in the nation), the small number of matriculated students limits the opportunity for further funding and for building on the discoveries of this bright graduate student pool.

The committee met with ten current graduate students and a GPSS representative. Morale was clearly quite high as was also noted in the GPSS report (dated June 15). The students praised the new procedural definitions spelled out for deadlines and timelines to be met. They appreciated being invited as a group to gatherings with the Chair. All appeared to enjoy their work in their mentors' labs. However, students struggled to get virology training and were occasionally shut out of an enrollment-limited course offered every other year at the FHCRC. A new course to be offered for the first time on the main campus this coming year will alleviate that frustration. This recommendation, made in 2000, is only now being implemented.

Despite good morale, there was one universal complaint. Journal club, a required activity, is very poorly attended by faculty (on at least one occasion, not a single faculty member attended). This disinterest was judged egregious by the committee and must be corrected by requiring faculty attendance. The faculty we talked with generally regretted their own poor attendance and blamed it in part on the selection of articles of too narrow interest and in part on the meetings being "irregular" (every 2 weeks). We recommend that the presenting student's mentor advise the student to select articles that will ensure broad appeal and that students give practice talks with at least one expert outside of their own lab. Of all issues, this seemed the most irritating and demoralizing for the students. That this relatively minor and correctable issue represented the chief complaint speaks well of the program.

Students, especially those supported on training grants, are required to take a bioethics course. It became clear that a number of these courses is offered by medical school departments and that there was some "reinvention of the wheel." It is recommended that leadership investigate the consolidation of these courses into a single well-organized course that would suit the needs of all students.

Recruitment of underrepresented minorities (URMs) continues to be a challenge. However, the results achieved by the Department are typical of peer institutions. 4-12% of applicants are URMs; 1-5 offers are made to URMs annually and 0 or 1 minority matriculates each year. The committee encourages continued vigilance in this area.

The curriculum finally appears to be coming in line with the 2000 recommendations. A new virology course will be offered and an 'evolution of prokaryotic diversity' course is now offered. New instructors have been chosen to take over the bacterial pathogenesis course, and one iteration of this course has now been taught. However, an overall curricular review is needed.

On balance, the Ph.D. Graduate Program in Microbiology is strong but would greatly benefit from additional students commensurate with increased funds to support their first year.

#### Synopsis of recommendations:

• Add more state supported TA/RA positions to increase entering graduate class size and better match the large number of labs able to accept and pay for students after their first year.

- Journal Club: Ensure that faculty are present for each meeting. Help students select articles of general appeal. Make a regular weekly schedule.
- Consider joining forces with other departments teaching ethics courses.

## POSTDOCTORAL TRAINING

Historically the postdoctoral community has been quite strong; it remains so in spite of the fractionation of the department due to separated working spaces and focused research interests. The success of these fellows stems in large part from their exceptional motivation, hard-work ethic, and high-caliber faculty mentoring. Nevertheless, some problems exist that impact postdoctoral fellow productivity and welfare. First, some fellows felt unsafe working late at night due to inadequate building security. Second, poor IT support means that each person must negotiate University, departmental, and personal computer issues on his or her own. Third, grant management personnel are swamped by faculty initiatives and give postdoctoral fellows less of their time and effort; thus, submitting timely applications for K99 and other awards is difficult when attempting to launch one's own career. They also desired a list of available funding to which they could apply. Fourth, postdocs did not feel included in the department. They said that they were not automatically on the itinerary of visiting speakers, not invited to choose speakers, had no "place to hangout", and were not included in the department retreat.

#### Synopsis of recommendations:

 $\circ$  Integrating postdoctoral fellows into the community is a challenge, but doing so will help build the strength of the entire department. Establishing a culture whereby postdoctoral fellows are given both the responsibilities (*e.g.*, inviting and hosting seminar speakers) and benefits (*e.g.*, computer support) normally attributed to faculty would empower them, ease their burdens, and help train them to meet future expectations.

## GENDER ISSUES

In the past, the department has had a variable record of closing the gender gap that persists in science, especially at the highest levels of academic endeavor. Although Helen Whiteley is accorded high honors, unfavorable negotiations with the Dean over tenure-track lines meant that three outstanding women scientists, Drs. Overbaugh, Galloway, and Linial, moved to the FHCRC. Lack of support has occurred more recently: a new hire, Dr. Rama-krishnan, was left to fend for herself in raising funds to build a fish facility needed for her high-profile work examining *Mycobacterium* infection in the zebrafish host.

Since the last review period, the department successfully recruited two senior women, Drs. Harwood and Collins, one junior woman, Dr. Ramakrishnan, and promoted Dr. Ramakrishnan from Assistant to Associate Professor. Surprisingly, one woman (Dr. Traxler) has remained at the Associate Professor level. These efforts contrast with the recruitment of four senior men (Drs. Fang, Greenberg, Parsek, and Singh), and three junior men (Drs. Lagunoff, Mougous, and Samudrala). Six men were promoted from Assistant to Associate Professor and two rose to the rank of Full Professor. During this time, several male Research Assistant Professors were offered tenure-track positions: Drs. Bumgarner, Mittler, and Sokurenko. It is not clear whether nationwide job searches accompanied these internal offers. Overall, the sex

ratio of females/males in the department is a modest 20%: 4/20 regular faculty and 8/39 training faculty.

As pointed out by many faculty, staff, and students, the untimely death of Carleen Collins was most unfortunate. She was an influential role model and her vivacious personality brought together members of all the scientific groups, greatly enhancing collegiality.

In summary, the department has made some strides forward but has also experienced setbacks, some of their own making and others out of their control.

#### Recommendations on Gender Issues:

Promoting gender equality should be an important objective of the department. Three strategies could facilitate achieving this goal.

- Value the expertise within the department. For example, encourage contact and commitment from female colleagues at the FHCRC, perhaps by hosting a weekly faculty chalk talk series that all faculty would attend. The FHCRC investigators themselves suggested this mechanism for encouraging collegiality.
- Focus faculty recruitment toward achieving a more even sex ratio within the department by identifying top women candidates among the applicants and giving them priority during the interview process.
- Use every opportunity to promote women faculty, by nominating them for awards from UW, from societies related to their scientific specialty fields, and from international boards that evaluate research or teaching.

### TEACHING

Compared to many but not all medical school departments of Microbiology, the UW department has a large teaching load because of its commitments to undergraduate programs. A minority of faculty were eager to express their love of teaching and joy in being part of the successful educational programs for students. The Instructors fell by and large into this category too.

Nevertheless, we encountered many faculty who felt they should not be teaching at all or not teaching as much. They offered various reasons for these sentiments: because other people were teaching less, because they did not know how teaching was assigned, because their labs had many people, because they brought in a lot of grant money, because they paid a significant portion of their salary from grants (though often on a State FTE), or because their initial letter of appointment (from many years ago) said they would not have to teach or would be limited to a specific small assignment. Judging from the amount of time faculty devoted to these complaints, this topic remains a major issue. Unfortunately there was much suspicion, feelings of inequity, and frustration expressed about these questions rather than an eagerness to resolve them in a collaborative way for everyone's benefit. These people seemed to be teaching because it was an imposed assignment, not out of a feeling that they were making a contribution to a broader program of education or to the goals of a major university. Some even questioned the value of the courses they were assigned. We were surprised that more successful grant getters and researchers would feel that such success should reduce their obligations as faculty members to their department and as professors to the university. The university provides the regular faculty the opportunity to develop their own scientific and

intellectual advancement in a unique and vibrant environment, a privilege carrying with it significant obligations to the central educational missions of the university. The university allows a wide range of behaviors but rightly expects teaching from all of its principal faculty. There is no university without teaching. Professors should profess.

#### Synopsis of recommendations:

• These issues can be solved only by developing a sense of collegiality and team membership among all faculty and by an open, transparent consideration of the total teaching picture and teaching assignments in a large group meeting, as discussed elsewhere in this report.

## COLLEGIALITY AND GOVERNANCE

Despite the many overall strengths outlined above, it was clear from the descriptions given by all of the faculty members who met with the review committee that there was much room for improvement regarding the functioning of the Department. Individual investigators generally described themselves as being very satisfied with the workings of their own research laboratories and noted that the University of Washington and the greater Seattle area were wonderful locations in which to pursue their career goals. The attractiveness of great scientific colleagues and an extremely stimulating scientific environment were often cited as key reasons for their satisfaction. Yet, when it came to individuals describing their sense of belonging to a departmental unit, there was a high degree of dissatisfaction.

Several reasons for this large dissatisfaction emerged from the discussions. The recent history of having had four switches of Department Chair in the last fifteen years certainly contributed to a lack of a coherent vision of the future of the Department. The faculty also spoke of a sense of fragmentation due both to the dispersion of member laboratories through a large geographic area, including the Rosen Building, and the fact that the disciplines of virology and bacteriology were not integrated. While everyone recognized the remarkable potential for intradepartmental synergistic activities given the strength of individual investigators, there was a pervasive sense of low morale. The phrase "I'm happy in my corner where I do my research but I do not feel I am a member of functional department" encapsulates the feelings put forth by many of those interviewed. The recent history cannot be changed. The geographic separation due to the fact that several laboratories are located in the South Lake Union campus is a reality that is, in all likelihood, here to stay. And the schism between virology and bacteriology is probably inescapable as it is a pervasive malady in the field of microbiology. But there are other reasons, largely relating to problems with the current governance of the department that appear to be at the root of the dissatisfaction. The good news is that by their very nature these are addressable and the review committee offers some specific recommendations.

The current Chair receives high praise for his ability to administer the department. His responsibilities are seen as enormous and the challenges he faces are indeed many. The Department is somewhat unusual in its position of being part of the medical school and yet also in charge of an undergraduate degree program. This duality creates a situation where there is much teaching to be done by a faculty in a medical school department where there is a culture that has not placed commensurate emphasis on the importance of teaching. The current Chair also inherited a complicated situation since taking over in October 2007. The outside recruitment of Peter Greenberg to be Chair had elevated the enthusiasm and expectations of the

faculty regarding the future of the Department. The failure of the School of Medicine to fulfill the promises made to Dr. Greenberg vis-à-vis new departmental infrastructure led to his resignation and concomitant decline in faculty morale. In that atmosphere, Jim Champoux is highly regarded for his securing of the School of Medicine's commitment to remodel two floors of the J-wing to house many of the department's laboratories in the future. He has also begun to restructure the teaching responsibilities such that the load is more evenly distributed amongst the faculty. Thus, several faculty reported a sense that the department is in better administrative shape now than before. It is probably true that what the department needed these past couple of years was a good administrator who secured the commitment for the J-wing remodeling and dealt with the financial repercussions of the current economic crisis. But that style of leadership has emphasized administration over overall scientific vision and has created some tensions among several members of the faculty. The fact the Chair is an outstanding biochemist, yet not deeply steeped in many of the ever-growing number of research areas germane to microbiology, is perceived as a deficiency. In addition, the Chair's style of taking on many responsibilities himself—ostensibly done in good faith to save his faculty some time—has not been well received. Two examples of this misguided effort are important because they probably greatly helped shape the prevailing feelings expressed at the time of the review.

First, the preparation of the self-study report was done without prior extensive discussions with the faculty as a whole. While response to the report was solicited a relatively short time prior to its completion, faculty sensed they were not significantly involved in its preparation from the outset and they did not fully agree on its contents. In fact, some faculty appeared to have received a copy of the report at about the same time that the review committee first received it. Full faculty participation from the inception of the self-study might have allowed them to work through some of their difficulties more easily and to have gained a sense of community.

Second, the process of determining teaching assignments seems to have been carried out without prior discussion among all of the faculty. This lack of discussion led to a sense that the administration of the department is being carried out without transparency. Several faculty pointed out that if there were complete transparency in the process of how teaching assignments are decided, then there would be an elevation of faculty morale with regard to their involvement in teaching.

In short, the manner in which the Self Study report was prepared and teaching assignments were made were two examples of missed opportunities in which to build a sense of the faculty as a community that works together as a team with common goals. Had the faculty as a whole been consulted, morale might have been elevated. Thus, the review committee recommends that, in the near future, a required-attendance meeting be held where the path towards curriculum review and assignment of teaching responsibilities be discussed and formulated. An atmosphere where the Chair delegates more of the responsibilities, and micromanages the activities of the department less, would go a long way towards improving the faculty's present sense of frustration, discouragement, and alienation.

In addition, the Self Study report describes a full page of committees. While this recruitment of faculty to help with governing sounded like appropriate delegation of authority, several of the committees seem to have done little and some reported that the Chair did not pay

attention to their findings and was not willing to circulate their conclusions, or undertook actions independently that should have been in their purview.

Other areas where a lack of transparency caused faculty to feel marginalized were departmental finances, key decisions involving faculty recruitment, and faculty space allocation. At times faculty felt displeased because they felt they were being kept in the dark regarding the handling of financial decisions and by the disconnect between recent search committee recommendations and faculty offers made. For example, several faculty pointed out that there was no open discussion about the allocation of state percent FTEs to different faculty members and how that related to their teaching loads. Also, space allocation did not seem to be handled openly.

Remark: It was not always clear what the faculty meant when they talked about percent FTE. Perhaps they would call a 100% State FTE "partial" if they also paid the department "tax," a B component, and additional recapture from grants. There seemed to be potential for misinformation and conflict that (as was suggested in 2000) could benefit from a clear statement from the Chair or Administrator defining the meaning and application of these standard terms.

The review committee was thus left with the impression that a few adjustments in the manner of how the department is currently being run could go a long way toward elevating the low morale of faculty. This effort is important for the near term as the department is clearly in an important transition period. By implementing a few governance changes, primarily an increase in transparency and an increase in faculty participation, the department could quickly evolve into a very attractive place for all. As stated clearly in the Self Study, the new space should be a very attractive feature that will facilitate any outside search to recruit new leadership to the department. However, strong candidates will not come unless the department develops a sense of trust and community.

The current Chair's term began in October 2007 and is to last five years. By the time the J-wing remodel planning is done, attention should be turned to initiatives that develop the intellectual future of the department. One hopes to see a strong vision developing of the long-term future of microbiology and the ability to carry it out in this department.

### FACULTY RESPONSIBILITY

The previous section focused on leadership. Nevertheless, we emphasize that the faculty as a whole have equal responsibility to improve morale and generate a collegial and stimulating atmosphere. Needed are good-faith efforts, good will, forward-looking initiatives, participation, a positive attitude, and willingness to devote time to making the department a successful intellectual community. We understood that the departmental seminar series represented talks by people who were independently invited by a faculty member. The Seminar Coordinating Committee reported that it seemed unnecessary to meet since the seminars were taking care of themselves. Sometimes the review committee got the impression that the faculty were simply "waiting it out" for a new chair to arrive and "save the day". But, in all likelihood, it would be difficult to recruit another leader to the department when faculty still project an image of being fragmented, unwilling to pull for the team, and lack cohesiveness, pride, and confidence in their unit. Statements such as "something is wrong with micro", "we are dysfunctional", "people don't like each other", and "no one goes to faculty meetings" speak volumes about the current state of affairs. Ironically, given the remarkable strength of the scientists that compose this department's faculty, this unit could easily be one of the two or three top microbiology departments in the world. Simple measures over the next couple of years could assure that the level

of collegiality increases dramatically, thus elevating faculty morale and greatly improving the image that the department can project during the process of recruiting new members and new leaders.

## Synopsis of Recommendations:

- Develop the new curriculum as a joint effort to create a sense of a team working together.
- Develop a response to this report in the same manner.
- Empower faculty committees to have responsibility and impact.
- Make attendance at faculty meetings semi-compulsory.
- Design a seminar series with significant speakers covering balanced topics and develop a culture where faculty attend departmental seminars and both graduate and post-doc presentations.
- Restart the faculty research presentations including departmental members at the Rosen campus and the FHCRC.
- Initiate new program projects and training grants with full administrative support from department and school. This combined effort will greatly help reduce the "culture of scarcity" and transform it to a "culture of 'yes we can". The established senior faculty, with their clear vision of the field's future, can help catalyze this transformation as visionary leaders.

Because the department continues to have serious issues in teaching participation, curriculum, and faculty morale and cohesion, we recommend re-review by the Graduate School in six years, several years into the next chairmanship cycle.

Submitted, June 25, 2009

Bertil Hille Celeste Berg Roberto Kolter Harry Mobley Elton T. Young GPSS Report Graduate Program Review Department of Microbiology June 15, 2009

On June 1<sup>st</sup>, the University of Washington Graduate and Professional Student Senate dispatched one GPSS Senator to attend a program review meeting with students from the Department of Microbiology. A peer committee also attended the review meeting and held a discussion with the students concerning their opinions of the Microbiology graduate program's strengths and weaknesses. This reports also includes responses from the UW Catalyst Survey. Salient points of the students' comments are summarized below.

# **Collegial Environment**

- Fellow students are friendly and helpful. The department exhibits an "open" environment and faculty are very helpful. Students mentioned positive interview experiences and an evident camaraderie among the faculty.
- The department's accessible and positive atmosphere was a factor in students' selection of this particular program.

# **Departmental Fragmentation**

- Some fragmentation between bacteriology and virology research groups was mentioned. The geographical location of virologists (at the Fred Hutchinson Cancer Research Center) may contribute to this.
- The South Lake Union campus is isolated. Most students on site at UW do not go there to attend talks and vice versa. One student who did make the effort to travel to the SLU campus relied on the shuttle service.

# **Presentations**

• Students expressed a desire for more faculty participation during journal club. They would like to hear faculty responses to their papers and presentations.

# Career Guidance

- Preparation and guidance concerning post-degree plans is very lab specific.
- One student voiced the opinion that the graduate program could perhaps give more guidance concerning careers and opportunities after degree completion.
- Students are generally not taking on industry internships and did not express much interest in this.

# **Research Opportunities**

• The lack of parasitology laboratories was pointed out by one of the students. Students may need to be made aware of opportunities to design their own research programs.

# **Overview**

It is important to stress that students were extremely pleased with the Department of Microbiology. All students present at the meeting were very satisfied with the program, their research, and the faculty. There appeared to be no outright complaints and plenty of positive feedback; some level of fragmentation between virologists and bacteriologists was perhaps the strongest of very few concerns raised. Students also would like to see more faculty participation during journal club in order to hear their responses to papers and presentations.