University of New Mexico Department of Biology Academic Program Review

April - May, 2008

Departmental Response to the Report of the External Review Team

Including a Summary Response from the Museum of Southwestern Biology (MSB)

3 October 2008

A NARRATIVE SUMMARY OF OUR RESPONSE

The extensive recommendations presented by the External Review Team provide importance guidance for the continued excellence of the UNM Biology Department. The attached document details the departmental response to each recommendation. In addition, the Museum of Southwestern Biology, a separate administrative, but closely associated unit, provides their own summary response to the review.

In this summary, we focus on three key recommendations that: 1) encapsulate the most serious issues that threaten sustained excellence in the Biology Department and 2) require immediate and sustained assistance from the University administration to address.

The External Review Team clearly perceived the pernicious effect that the stagnation of faculty growth has had on the department. They strongly recommended a moderate and immediate increase in faculty size coupled with a plan to anticipate retirement of key faculty members in EEOB (ecology, evolution and organismal biology). In response to this recommendation, we present a hiring plan that is the result of careful, long-term planning by the department and which is in line with the department strategic plan. This plan consists of the recruitment of two new Cell/Molecular biologists (CMB), two new faculty members in support of the CETI (our NIH-funded Center for Evolutionary and Theoretical Immunology) renewal proposal if successful, and four hires in EEOB to replace distinguished faculty that are on the verge of retirement. In order to preserve the integrity of outstanding programs in the Biology Department, these hires need to take place over the next four years. If implemented, this plan will result in sustained prominence of the outstanding EEOB program, achievement of critical mass in CMB, and integration of the different sub-disciplines within the department to achieve overall excellence. In the absence of a commitment to these hires, it is the consensus of the External Review Team and the Biology Department faculty that excellence cannot be sustained.

The declining quantity and, to some extent quality, of applicants to the graduate program in Biology is a serious obstacle to improving the national standing of the Department, and several recommendations from the External Review Team focus on this issue. The Department can address some of these recommendations directly, but others require institutional support. In particular, we must continue to increase graduate student stipends by at least 8% annually for two more successive years as the single most important factor in attracting and recruiting superior students. In addition, the Department needs to mount a vigorous outreach program involving electronic and print advertisement, recruiting visits to campus, and active recruitment of underserved groups. Finally, the Department needs to stabilize funding for key elements of our infrastructure, including the Sevilleta Field Station. These objectives can only be achieved with the administrative and financial support of the University.

The External Review Team identified significant shortcomings in student advisement, IT support, tracking and assessment of student success, and laboratory preparation for 300-400 level courses. The Department requires institutional assistance to address these important issues by recruiting another student advisor, an IT specialist, a part-time assessment person, and an additional person for lab preparation.

The External Review Team viewed the development of the Rio Rancho Campus as an important opportunity. The Department is eager to assist with the Rio Rancho development, but there are significant uncertainties about the effect of the new campus on research-intensive and higher-plane functions of the main campus. Until these uncertainties are discussed and clarified with the Administration, they will inhibit full Departmental participation.

Regarding the review team's bottom line assessment of the department as "very good", we are acutely aware as seasoned grant writers that the term "very good" means we have work to do, and we look forward to partnering with UNM's administration to strive towards achievement of the review team's suggested goals.

Acknowledgments: We would like to express our sincere thanks to our review team comprised of Dr. Christopher Bayne, Dr. Candace Galen, Dr. George Uetz, and Dr. Patricia Crown as the UNM member, for taking their task very seriously, and for providing feedback of genuine value to the department. We note that our review process took place at an extraordinary time in UNM's history and we greatly appreciate both the forbearance of our reviewers and their willingness to engage the department and the administration, often in a very spirited manner, as a part of their duties. We also wish to thank Ms. Bessie Gallegos and Ms. Nancy Middlebrook for their skill in organizing the review.

A BULLET POINT SUMMARY OF IMPORTANT ACTIONS REQUESTED BY REVIEW TEAM

- Achieve critical mass in Cell/Molecular Biology (CMB) faculty by making competitive offers, undertake coordinated hires ahead of retirement of distinguished Ecology, Evolution, Organismal and Behavior (EEOB) faculty, hire outstanding minority candidates, strive to integrate, increase interdisciplinary approaches and favor international emphasis
- Improve career trajectories for Lecturers, reduce faculty salary inequities, value the work of MSB curators more
- For undergraduates, improve outcomes assessment and career tracking, develop emphasis areas
- For graduate students, increase and improve recruiting efforts (especially for minorities) and salaries, work with other UNM units to develop a CMB core, consider rearranging Bio 500 to make it more relevant, consider adopting a Professional Masters program, consider making Research Day more of a grad recruitment opportunity
- Regarding staffing, hire an IT person to help with recruiting and to update webpage, an additional student advisor is needed, somehow improve outcomes assessment and student tracking, more support staff for 300-400 courses is needed
- Other goals should be to improve outreach efforts, work with the administration to improve return of overhead funds and service provided by pre-award grant offices, accept the reality of Rio Rancho campus and use it to our advantage, do a better job with outside fundraising, be skeptical about the business model for running UNM, and continue to seek upgrades of facilities

BULLET POINT SUMMARY OF IMPORTANT DEPARTMENTAL RESPONSES

- Suggested faculty hiring plan in response to review and in coordination with departmental needs
 - 2008-2009: Cell/Molecular biologists #1 and #2
 - 2009-2010: CETI hire #1 (if funded); first EEOB distinguished hire
 - 2010-2011: CETI hire #2; EEOB hire #2
 - 2011-2012: EEOB hire #3
- Continue to increase graduate student stipends by at least 8% for two more successive years as the single most important recruitment tool, and improve our advertisement and outreach
- Staff needs to be met in priority of need
 - IT specialist
 - Another advisor
 - At least a part-time outcomes assessment person
 - Upperclass facilities manager and lab prepper
- And finally an appeal to our administration: we want to assist with the Rio Rancho Campus, but do not let RR needs undercut the research-intensive and higher-plane functions of the main campus

A SEPARATE SUMMARY RESPONSE TO THE REVIEW FROM THE MUSEUM OF SOUTHWESTERN BIOLOGY (MSB)

As curators of the MSB, we felt the contributions of the MSB to the Department, the College, UNM, and the scientific community at large were severely underemphasized, making it difficult to advocate for our substantial needs. In part this was a consequence of the fact that one of the proposed members of the external review team, a museum specialist, was at the last moment unable to participate in the review. Some of the issues we would like to have seen raised are:

- The need for a full-time IT person is critical to maintain IT infrastructure, computerized security, and develop new systems to accommodate dataintensive curatorial programs in the MSB
- The need for recognition and encouragement at A&S and in the Department of MSB Faculty curators and staff efforts to develop crossdisciplinary undergraduate (e.g., UMEB, UNO) and graduate education and training programs (e.g., MSB-IGERT) that focus on recruitment, retention, and matriculation of top students, including underrepresented minority students and national merit scholars.
- Recognition of, and compensation for curatorial duties performed by Faculty Curators
- Summer compensation for Faculty Curators to acknowledge that curation is a 12-month job
- Recognition of substantial contribution of human resources and specimens to teaching, research and outreach missions of the Department and UNM.
- Emphasis of the fact that the MSB is the primary organization responsible for field courses and a academic concentration area in Conservation Biology
- Address the need for increased funds for operating expenses, especially in our newest divisions (Birds, Arthropods, Parasites)

DETAILED DEPARTMENTAL RESPONSE TO REVIEW

FACULTY GROWTH AND HIRING

Note that with one retirement and another faculty member on long term leave, we actually have fewer faculty in the department this year than last.

One of the major recommendations of the team was that it is important to achieve a critical mass of faculty in the area of Cellular and Molecular Biology (CMB), both for purposes of covering teaching demands and creating research synergies.

We agree wholeheartedly with this recommendation. This is why we had planned to make a CMB hire in this area in 2007-8, and had also planned another cell/molecular search in 2008-2009. We feel it is important to make both hires as soon as possible.

Permission to move forward with making offers to CMB candidates identified in our 2007-8 search, including a minority scientist was identified as a "specific and urgent requirement" by the committee. We are encouraged to aggressively pursue special opportunities to bring outstanding minority candidates whenever possible, with strong administrative backing.

We again wholeheartedly agree. It is for this reason that the administration's cancellation of our cell/molecular hiring process in 2007-8, particularly when an excellent minority candidate had been identified, was so discouraging.

Another major recommendation was to work hard to sustain prominence in Ecology, Evolution, Organismal and Behavioral (EEOB) Biology by making vision-based hires ahead of retirement of distinguished faculty working in this area.

We are in complete agreement with this recommendation. Let's get started! Our response to this question is not unrelated to the response to the following recommendation.

One suggested strategy was to proceed with a planned "cluster hire" that might, for example, consist of a senior, eminent EEOB faculty member, a rising star in integrative biology of behavior (neurotheologist), promising junior person in behavior-related CMB interface).

If we had assurance that resources were available to support such a concept, *ahead* of the retirements of the three distinguished professors, we would be happy to engage in the needed departmental discussion about such a cluster hire. Without the pledge for such resources, then

there is reluctance to spend a lot of time doing this, as it could be a conversation for which spirited disagreements exist. The specific cluster hire proposed has merit in that it recognizes that studies of behavior will increasingly have to be integrated with neurobiology, provides a logical way to introduce neurobiological studies to our department (long one of our shortcomings), and provides another way to integrate organismal and molecular approaches within our department. Whether this would be the specific approach taken to replace our senior EEOB faculty would however be a matter for specific faculty discussion.

A third major recommendation was to strive to integrate different sub-disciplines within the department to achieve overall excellence.

One of the fundamental operating principles for UNM's Biology Department for many years has been to foster cross-cutting approaches to Biology, one that knits CMB to EEOB. We agree in principle this is a smart way for us to continue to proceed. However, we can not do this simply by adding to the workload of existing faculty. Additional hires are crucial.

A recommendation of 3-4 net new tenure track hires as well as one-to-one replacement of retiring faculty was recommended, preferably with an emphasis on strategic cluster hires to enable synergies to develop.

In formulating a response to these requests, UNM needs to take into account that our hiring plan had already identified the hiring of two cell/molecular biologists to replace retired or absent faculty and that an impending submission of the COBRE CETI proposal if funded provides the opportunity to make at least two additional hires (comparative immunologist, parasitologist) and possibly support other hires, that serve as integrative positions with interests in both CMB and EEOB. Some overlap between the CETI-aided positions and the suggested three preemptive EEOB hires would be encouraged. Also, if it turns out that, as suggested, the preemptive EEOB hires are actually concluded before the three distinguished profs actually retire, these three hires would not be true "net new" hires and should not preclude actually making the three net new hires suggested by the review team.

The completion of the addition to Castetter Hall will allow for growth in size of the faculty in line with what was called for by the review team. It would be illogical for UNM to invest so much time and effort in construction of such a research facility if a concomitant increase in faculty to populate it was not also allowed.

In general, we implore UNM to adopt a solution that does not require intradepartmental strife to achieve these objectives. In other words, UNM needs to come up with net new resources to facilitate the mandated increase in size of the Biology Department, rather than promoting warfare between biologists representing different parts of the spectrum. At a time when the research enterprise on UNM's main campus is hurting, we maintain that investing money in improving and growing the Biology Department by hiring outstanding faculty who are able to write competitive grant proposals is a smart strategy.

We are encouraged to nurture interdisciplinary programs to help build linkages and to strengthen departmental resources that foster international collaborations. The hire of an endowed chair in conservation biology with an active international program to serve as a director of the LTER (and field station) is encouraged.

Continuing departmental support for programs like PIBBS and CETI is consistent with goals to promote interdisciplinary and international approaches. The LTER, LTER network, and MSB also have strong roles to play here. Increased communication among major funded programs and perhaps pooling of resources is encouraged to bring more international scholars to New Mexico in more integrated and consistent ways (as for example in a distinguished lecture series, or for small conferences with international focus, preferably with multidisciplinary emphasis.

We need to make hires accompanied by \$500K start-up packages in CMB.

Agreed, that there is no point in attempting to make hires if we can not be competitive, and this is yet another reason why the unimpeded flow of overhead funds back to the units that generate them is so critical (see financing section below).

FACULTY DEVELOPMENT

We should develop a defined reward and promotion system for Lecturers and Research Faculty that parallels that for the tenure track faculty. This should include a clearer space allocation policy, promotion criteria, salary scales, election of a spokesperson, and provision of the same kinds of assistance afforded tenure track faculty.

We agree. Biology has been one of the most proactive units in all of UNM in this regard. We have developed a proposed plan for how to proceed in defining career tracks for Lecturers and have passed this agenda to the College for further consideration. We have a spokesperson appointed to function at the college level to help promote this agenda. We have implemented policies to try to bring both Lecturers and Research Faculty/Postdocs more into the departmental fold, and we are happy to continue to work on doing so. This includes provision of offices (should be more possible with new space coming on line) and basic facilities, alternative opportunities for funding (as by teaching when grant funds are in peril), and having an opportunity to meet with the departmental administration to voice concerns and needs.

We need to alleviate low salaries and salary compression at mid- and seniorlevel faculty ranks.

An inspection of past Biology program reviews would reveal similar if not identical comments. Of course, yes, we agree and would love to see the resources made available to make such a plan a reality. Although we would be enormously grateful if such resources are forthcoming, and are loath to not accept any influx of funds to help with this matter, we argue that we need to proceed carefully with full departmental buy-in in a way fair to all faculty ranks. For example, it would potentially be catastrophic if the solution were to mostly ignore existing associate and full professor salaries and solve the problem only by hiring in new professors - assistants or otherwise - at salaries inflated by our current standards. Likewise, any solution that targeted the associate and full professors should be very mindful of our need to recruit promising junior colleagues.

Regarding MSB, curatorial work needs to be more valued.

Yes, no conceptual disagreement, and of course this requires new resources. This is because if teaching loads are reduced to accommodate the curatorial duties, as they should be, then there is a need for funds to hire additional professors to take up these duties. Simply sloughing these duties off on the existing faculty is not the solution. Also, this is not something that should be accomplished by hiring of additional Lecturers as there is a general feeling that our department has gone as far down this path as we should. As previously noted, there are a number of other departmental duties for which it could be argued that lightened teaching loads are required, such as advising or running the molecular facility. We need to be careful to keep these needs in mind as well. Finally, any solution here should take into account that the productivity of faculty/curators varies considerably, and that at least to start with, this is something that should be phased in starting with the most productive curators. We encourage a discussion with all the relevant parties that takes this broader set of issues into account.

UNDERGRADUATE PROGRAM

In response to the question of whether the department should continue to accept ever more undergraduates, or alternatively raise criteria for majors, the committee recommended a policy of "natural growth" and retaining current expectations, only later imposing filters if growth its excessive. We agree with this approach but the question becomes, "when does natural growth become excessive"? Note that we have twice as many undergraduate majors now as during the last review. At that time the number of majors per faculty member was already considered excessive.

We should develop several emphasis areas with appropriate advising and supportive web pages.

In principal we do not disagree, but then the question becomes, who will help us keep track of the extra administrative/advising burdens that will ensue? It is for this reason that we are not enthusiastic about pursuing this approach across the board. There may be some groups within the department, particularly where undergraduate enrollment is lower, for whom developing an area of emphasis makes immediate sense. However, we do not intend to require that faculty engage in this extra work Can we think about a course release for someone to work on this?

The department should make every effort to track the number of students engaging in research, graduating, etc., and more advising is needed.

Yes, this is currently one of the greatest shortcomings not only in Biology but across the entire UNM campus. We would love to be able to collect this data but without new resources to do this, given our staff is already complaining about the need to multi-task (see other parts of the report), the department can not in good conscience impose these tasks on anyone currently employed. It would be ideal to have a specific staff member assigned to this purpose, but as discussed below in the staff section, there are other urgent staff needs as well and we must guard against the temptation of having one person do too many things. For tracking alumni, it makes no sense for the department to develop its own data base and tracking system. This kind of system needs to be developed at the university level in a manner that adds departments to add a few questions for their former majors.

GRADUATE PROGRAM

Several recommendations were made, some requiring more resources. The resource-driven recommendations were: provide support for minority recruitment, increase the number of students with external fellowships, and keep raising grad student pay for two more years at 8% per year.

We agree with all these recommendations but have to figure out how to find the resources. We are willing to do our part but the UNM administration needs to provide leadership here, guided by the principle that graduate research is one of our most important priorities. Some funds can be provided from departmental resources (overhead or foundation accounts) for minority recruitment (for example to support faculty travel to SACNAS) and RA support for an outstanding minority grad student. We can also consider providing supplemental funding to outstanding students to get them to come to UNM (provide them mini research budgets). Provision of more RA options to our students is critically needed. One of the best way to ensure this, particularly in a time when it is difficult to secure federally-funded scholarships, is through the mechanism of donation from private sources. We need to keep trying to find sources of private funding to support grad student scholarships.

We were very encouraged by UNM's recent decision to increase graduate student stipends and we need to follow up on this, exactly as recommended by our review team, with increases of similar magnitude over each of the next two years. Then, once this is achieved, we can't assume the problem is solved for another decade because our peers will also be increasing their stipends as well. Increased stipends will dramatically increase our competitiveness among our peers for recruiting excellent grad students.

We should assess merits and demerits of a technology fee to support computer infrastructure.

Our first response to this suggestion is that our students are not significantly limited by access to technology or computers and we are reluctant to impose any fees on them. Any upgrades needed should come from departmental resources. A technology fee was recently imposed on students across the university, although this fee has been used primarily to implement the new database system.

We should use research day as an opportunity to recruit grad students (change its timing to Dec/Jan). To go with this, funds are needed to bring students to campus.

We agree with the need to devote resources to recruit graduate students and to have some kind of communal recruiting process. We have always provided funds to bring in promising candidates and certainly intend to continue this practice.

With respect to changing the timing of Research Day to accommodate graduate recruitment, this would need to be debated among the faculty. One factor mitigating against this change is that it often takes our students most of the academic year to generate the results needed to present at Research Day. It is true that the presentations of Research Day would do much to encourage new students to come, but it would also add additional recruitment responsibilities to an event that is already pretty demanding for many of us, and could dilute or diminish student research efforts.

Note also that Research Day is equally important to graduate and undergraduate students. It is not likely that undergraduate students could be ready for a earlier deadline and it would be unfortunate to shut them out of this event. Perhaps a different kind of research event focusing on the work of lab groups could meet recruitment needs.

CMB faculty need to partner with other units of UNM (particularly to health science programs) to develop a more comprehensive program to serve as a graduate core in this area.

This is a good idea. It is also not a new idea and has been tried in the past. Part of the problem is that this largely depends on cross-Lomas communication, and this is largely a function of the interactiveness of the administrators and faculty involved, and this cast of characters is always changing. This is also an enormously time-intensive endeavor and if this were to be promoted, then our faculty need to receive teaching releases or we need high level staff support to achieve it. Another problem is that the UNM bureaucracy for approving major curriculum changes is labored, takes too much time, and often stifles such initiatives. This needs to be streamlined if we are to undertake such approaches.

We need to revamp Bio 500 to include sections on how to succeed in grad school and how to write proposals.

This is a course that should always be flexible and subject to revision, depending on the opinions of the current graduate student body and faculty. Much of the content now is viewed as being essential information pertaining to the topic of how to succeed in graduate school. We have often opted in the past to keep the demands imposed by this class manageable - the suggestion to include a segment on proposal writing will increase the time commitment. As part of the same discussion, we can also debate whether we need to include ethics training as well. We are open to the suggestions and encourage a faculty discussion of the topic.

We should consider the development of a Professional Masters Degree Program, largely involving MSB and LTER faculty. For example, our existing Conservation Biology program could be synergized with Sustainability and Anthropology graduate programs, and Museum Sciences could also be linked with sustainability.

We are reluctant to create new degree programs unless there is clear administrative direction, and provision of resources and staff support, to assist us. The faculty in the programs most affected here need to voice their opinion on such programs.

STAFFING

Several recommendation regarding staff needs were provided and we respond to them here in order of our perceived needs.

An IT person should be recruited to help with advising, outcomes assessment, recruitment and faculty research support, including helping MSB.

Yes, we desperately need help in all of these areas and an IT hire is our highest priority for staff. However, we need to be careful and avoid the usual UNM solution of trying to make one person do too many things and become ineffective at all of them. For example, if we are to get serious about outcomes assessment, this should be a task for a separate individual, not an IT person. Also, MSB should be able to get their own IT person to address their specialized needs as opposed to having one person assist both the department and the museum.

The duties of the IT person need to be carefully defined, and include assistance with upkeep of website and assistance with advising and recruitment efforts. The IT person can not be expected to be an advisor as well: advising is a separate and specialized function (see below). Also, whereas an IT person can assist the grant-writing mission, they can not be expected to be a fully engaged pre-award person either.

The department already has plans to hire a full-time pre-award person with available funds.

An additional student advisor is needed.

Agreed, this is our second staff hiring priority. Time and again, in conversations with the community, it comes to light that UNM students have received inadequate or erroneous advising. It is one source of student failure. We have over >1300 students wishing to have an intimate relationship with the Biology Department and having one full-time advisor is just not enough to facilitate that. Faculty pitch in and help but this robs them of valuable time, and it is not trivial for faculty members to keep up with all the changes in advising requirements and associated bookkeeping.

The department should make every effort to track the number of students engaging in research, and to track student success.

Yes, as noted elsewhere, this is one of UNM's greatest institutional shortcomings. This is also a specialized and ongoing task and should not be imposed piecemeal on existing faculty unless there is a longer-term, sustained commitment accompanied by teaching releases, salary

increases or other inducements. Preferably, it should be handled by a specialist with the appropriate training. The more seriously this is taken, the better and more reliable the date obtained. In other words, if we are to get "outcomes", there is no point in getting poor data and being fundamentally mislead by it. We feel the department should be given the resources to make a part-time specialized hire to assist us in this area.

Another person needed for prep support of 300/400 level courses.

This has long been a need of the teaching mission in our department. The lack of such a person has for years had several detrimental effects on our teaching program, most notably the failure to provide more intensive, modern and meaningful laboratory courses. Most of the effort associated with development of such labs has fallen entirely on the faculty member in charge. Provision of such a person for our lower division courses has been enormously beneficial.

We also note that the construction of the Math/Science Learning Center with the Non-Majors Introductory Lab function of our department removed to a location remote from the remainder of our operation will necessitate the hiring of at least one more Biology Lab Prepper.

In a similar vein, whereas as suggested by our Review Team we need to get on board with the Rio Rancho Campus concept, we note that the RR effort will require the hiring of many new staff and we are pleading that the administration not preempt us from hiring the staff we need here on the UNM Main Campus to support our flagship teaching and especially research efforts. We note also, that the current agreement is that lower division courses will be taught by CNM faculty on the Rio Rancho campus. Thus space and facilities for "our" lower division courses will not, in fact, increase. We have concerns about this plan because we have worked very hard on our new core curriculum. We need a mechanism to ensure that students who take the biology core at Rio Rancho get the same knowledge and skills as those who take the biology core on the main campus. The administration should provide funds for a faculty or staff member to coordinate curriculum between UNM and Rio Rancho. Again, we cannot ask our existing faculty to simple add duties.

Initiate peer-advising with our students.

Although we agree that it is a good idea to have our beginning students interact with more experienced students, and such interactions can provide invaluable communications that might not otherwise occur, we are reluctant to recommend solving our advising shortcomings with this approach. This requires someone to oversee the student-advising program and very careful screening is required to be sure that the selected individuals transmit accurate information. Confidentially issues make further complicate this approach. Peer advisors could not handle degree audits, adding notes to advising files online or evaluation of transfer courses. And, peer advising for entering students in university studies appears to be the source of a number of student misconceptions.

WEB SITE

Provide a first rate web site.

We have just hired a temporary web site design person to assist with this effort, and our first priority for staff hiring is an IT person to assist us in maintaining the site. We will need individuals running important programs that can showcase our department to be proactive about providing content, and working with out IT staff to keep it up to date.

OUTREACH

Advertise more effectively the outreach programs to legislators and public at large.

Provision of a hands-on, "willing to regularly come to the department and get their hands dirty" outreach person from Scholes Hall would be a refreshing development. Also, clearly an improved web site will assist in this effort. The department, through its own grant-writing efforts, perhaps does more than the review team noticed.

FINANCING

Again identified as specific and urgent recommendations are the needs for UNM to overcome the trend of diminishing I&G support and increasing reliance on overhead funds, which are then being either frozen or held back by the administration.

The only thing that has saved Biology from complete financial ruin has been the imposition of across-the-board course fees (largely to offset the reduced I&G funds), the fact that we generate considerable overhead funds to help make up for shortfalls in I&G funding, and a frugal and disciplined approach to our spending. The uncertain return of overhead funds (that we have rightfully earned by virtue of our hard work) sends all the wrong messages to our PIs. Not only is it a disincentive to write proposals, it also greatly interferes with our ability to provide start-up packages, and to undertake larger scale creative initiatives in collaboration with the UNM administration. The imposition of "taxes" on our I&G funds to support the initiatives of newly-hired Provosts or other administrators are devastating to Biology, as they take away resources needed to make new hires to replace retired faculty.

The freezing of departmental foundation and overhead funds that occurred while our review team was on location in the department, and that ultimately was instrumental in catalyzing the April faculty uprising, was an acute embarrassment for us and for UNM.

Our Office of Sponsored Projects office is not facilitating our efforts to secure grant funding.

This is a long-standing problem at UNM and surely identical comments can be found in past program reviews. However, this problem has grown worse in the past year. With the recent hiring of new administrators in the research office with intimate knowledge of the whole gamut of problems, it is our hope that we can begin to rectify these problems. Our role has recently been to meet with sponsored projects employees to work to develop stream-lined procedures, to encourage them to spend time in residence in the department so they can become more acquainted with the PIs, and to initiate the hiring of a pre-award Biology staffer who can help facilitate communication and proposal preparation for PIs. We note there is little that will improve unless UNM hires more grants administrators, somehow reduces their turnover rate, and adopts an approach that puts PIs on a pedestal.

The department should share its budget data with MSB.

This in fact has been happening and there is no reason for this not to continue.

SOME BIGGER PICTURE ISSUES

In response to a question as to whether the department, if it grows larger, should split, the response was this need not lead to an alternate structure (two departments).

We agree with their assessment that the present structure is preferable. This, at least at present, is not a major subject of departmental debate.

The department needs to take advantage of the Rio Rancho campus.

Yes, rather than dither and complain about what is increasing a certainty, how can we take the initiative here and try to influence the course of its development to our advantage? Is this a place to encourage certain clusters of excellence to develop? Rather than proceed with a willy-nilly

plan to hire "one of everything" and essentially create yet another lowgrade community college, can we seize an opportunity here to develop some subject areas (neurobiology???) we have long needed but are not otherwise likely to get here on the main campus?

We should assess benchmarks in publications and grant dollars over 5 year intervals rather than on a year-to-year basis.

We have no fundamental disagreement with this idea despite the amusing socialistic overtones of the "five year plan", and it is clearly the case that our productivity does vary among years.

Attract more philanthropic support, including for endowed chairs, fellowships and infrastructure.

Particularly in times of federal funding shortfalls, seeking alternative sources of support for our programs is of critical importance. Our recent experience in partnering with Mr. Bill Uher has been positive and had lead to some tangible gains for the department, and prospects for other donations to the department are good. Other interactions with UNM's fund-raising apparatus have been poor however and have lead to withdrawals of proffered funding. As with many other aspects of UNM, stability in fund-raising mechanisms with a long-term institutional memory is needed. Also needed is greater sensitivity to the fact that when faculty are instrumental in raising funds, the money should actually benefit them. It is a particularly bad sign for UNM that even national academy members do not have endowed chairs. This should be the focal point of UNM-Biology fund raising.

Continue to seek support for upgrade and expansion of facilities.

Yes, emphatically, we are not done with facilities improvement, and we can not sit idle here. If we are not careful, the main campus will lose its animal care facilities. This would be a catastrophe, particularly for our ecology and evolution programs which often require specialized facilities and maintenance of unconventional species, and a plan to provide such facilities for both Biology and Psychology is urgently needed. Such plans have been offered before by the department but have been rejected by the administration at the time. A Phase III for Biology expansion is needed, one that considers elimination of Marron Hall and replaces it with a building with a new flexible and multi-purpose "vivarium" in the basement, and in above ground floors additional office and teaching complexes to favor interdisciplinary approaches, the quietly effective and productive Natural Heritage Program (with great fund-raising potential), the

development of the Earth, Water, Environment Nexus (EWEN) program, and other longer term initiatives likely to attract funding and prestige.

The business model is not always the best way to view universities.

In our view, this administrative approach lead directly to the faculty revolt of April 2008, and if we are not careful, the research enterprise of UNM will be further degraded and lost, and more uprisings will follow. Significant erosion in our research mission has already occurred, as manifested in loss of excellent faculty, inability to hire outstanding new faculty, reduced return of overhead funds to generating units, funding shortfalls in the OVPRED office, and the lack of cohesive and stable leadership willing to partner with our resident experts to build, from the bottom up, research initiatives that really fit our research expertise, that are truly innovative and distinctive, and that are realistic for New Mexico and UNM. Having decisions driven by matters of student credit hour generation while ignoring the need to promote and foster the growth of research efforts, is not an inspiring way to run a university and if it continues, will promote mass defections.