Dear Colleagues,

I want to thank the Stewarding Excellence Project Team that reviewed the Beckman Institute for Advanced Science and Technology (Beckman) and the Institute of Genomic Biology (IGB) for their insightful review and for their patience in awaiting this response. Much has happened since the committee issued its report. In many respects, the campus finds itself in a stronger financial position than it was in at the outset of the Stewarding Excellence initiative. Campus units worked hard and engaged in careful and critical strategic planning to bring about this improved position. The funding model that undergirds the university, however, faces continuing pressures, which have been accelerated by the recession and the slow recovery that has followed it. State funding continues to erode; tuition has increased at a rate that is not sustainable; and federal research funding is not growing. The complex interconnections within and across our educational (undergraduate, graduate, and professional), research, and service missions are vulnerable to these pressures.

The campus interdisciplinary research institutes have made enormously important contributions to our research success, and they have enriched our educational mission through the many students – both graduate and undergraduate – who participate in research projects. Beckman and IGB are unique in their foci and in the contributions that they make to campus and beyond. They share, however, core issues that in large part prompted these reviews and that will be key to the future success that the campus and these units collectively build. At this time, as we complete an extensive transition in key campus leadership positions, review of those issues and the project teams’ recommendations will hopefully help us move forward to preserve and enhance the distinguished place the institutes occupy within the larger campus research environment.

As noted by the project team, the primary goal of both Beckman and IGB is to facilitate interdisciplinary research that is difficult to conduct within individual departments and which benefits from access to campus-wide expertise and collaboration. With a broad focus on the cognitive sciences, Beckman is the largest university-based interdisciplinary research facility dedicated to the interface of the physical sciences, the life sciences and engineering. Similarly advancing interdisciplinary campus research, IGB facilitates collaborative research in the life sciences and bioeconomic development in the areas of Systems Biology, Cellular and Metabolic Engineering and Genomic Technology. Both research institutes engage significant numbers of faculty and generate impressive research portfolios. Because they provide a central location and resources for creative interdisciplinary collaborations, the institutes serve to increase the campus competitiveness for funding of interdisciplinary research. For example,
IGB played a major role in the university becoming one of the three homes to the Energy Biosciences Institute (EBI), a public-private partnership that is investigating bioenergy concerns within five multidisciplinary areas. More recently, the creation of the Center for Nutrition, Learning and Memory, made possible by a five-year investment from Abbott Nutrition, utilizes the research facilities of Beckman, IGB, the Division of Nutritional Science and the Neuroscience Program.

Beckman and IGB have both established themselves as distinctive, powerful components of the campus’s research environment and of the reputation of the university more generally. Research services provided in these institutes benefit faculty across the campus – many of whom do not have structured appointments in Beckman or IGB but who use research facilities made available through the institutes. In order to meet their fundamental obligation to facilitate innovative cross-disciplinary research, however, the institutes operate in a research-administrative environment dependent upon, but separate from, the mainstream academic culture as it is organized into colleges, schools, and departments. Because the success of Beckman and IGB depends crucially on the contribution of faculty members whose primary homes are in departments within the basic academic structure, and because faculty efforts that produce success in Beckman and IGB are, in some sense, not then fully available to their home departments, there are unavoidable tensions.

As noted by the project team, “many [feel] that there needs to be a balance between the benefits created by the Institutes in nucleating big collaborations among Academic Units and the challenges brought about from the Institutes’ competition with the internal efforts of Academic Units.” The struggle to achieve such a balance breaks roughly into two interrelated components: the financial cost of supporting the research missions of Beckman and IGB; and the mix of benefits and costs, financial and otherwise, that accrue to college and departmental units because of the presence of Beckman and IGB, especially departments with faculty who pursue their research almost exclusively in one of these institutes. It is important to clarify, to make visible and understandable, the value of Beckman and IGB to the campus and the costs as well as the benefits, to our colleges and departments.

A. Funding

Tier 1 university level research – research essential to securing our place among the great research universities in the world – is expensive, whether it is done at our research institutes or in our departments. Such research, wherever it is performed, draws on the same, finite funding bases. The primary funding bases for covering research costs at Illinois are:

- general revenue funds appropriated by the state;
- external grant funds directly supporting research from federal, state, foundation, or corporate agencies;
- indirect cost recovery funds provided by many, though certainly not all, external funding sources.
Different principles determine the distribution of these funds. Funds from external sources that support research directly are secured through competitive proposals. They are explicitly restricted to supporting the research projects for which they are acquired – although equipment acquired through these grants may then be used for other projects. Researchers at Beckman, IGB, and the rest of the campus compete successfully for these research dollars. These funds are not redistributed.

Research, of course, requires substantially more funding than the direct support of projects through external grants. Most federal funding agencies also provide funds to cover the indirect costs of supporting the larger campus environment essential to house research facilities. These Indirect Cost Recovery funds are distributed by formulas that reflect the range of costs essential to maintain a research environment in which directly funded research can thrive.

As is noted in the recent National Academies publication, Research Universities and the Future of America: Ten Breakthrough Actions Vital to Our Nation's Prosperity and Security, the sum of direct costs and indirect costs in federal research grants is not sufficient to cover the real, total costs of maintaining the environment essential to research. Other funds must be used to support the research being conducted across campus, regardless of its location in an academic unit or a research institute. The primary source of this additional funding must be state funds.

A frequent complaint about Beckman and IGB concerns the allocation of ICR funds from grants run through the institutes. Prior to distribution to units, approximately 9% of ICR is assigned directly to utilities. Of the remainder, for research based in departments, 5% of the ICR goes to the College, and 25% to the home department. For multi-disciplinary grants administered in the institutes, the Project Team correctly reported that the institutes receive 30% of the earned ICR (after utility related earnings are taken off of the top), and that the campus does not have guidelines for allocating a portion of those funds to the departments of the faculty members engaged in the research.

The Project Team helped to frame questions that are at the heart of the ICR debate, including:

1. What distribution model would appropriately support both the institutes and the academic home departments for their contributions in supporting the faculty researchers and the overall research mission of the campus?
2. When should research grants be run through a faculty member’s home unit versus being administered by the institute?
3. Should there be campus-wide policies that determine whether, and how much, ICR should be transferred back to the departments of faculty members whose grants are administered in an inter-disciplinary research unit?

The institutes, of course, are not alone with respect to their concerns about ensuring a transparent and equitable ICR distribution formula. Across campus, the issue of ICR distribution understandably generates a great deal of interest and attention because of its importance to the units that generate ICR and to the campus units that depend upon its funding to support core research services and missions. In AY 2011-2012, the campus began a
comprehensive review of ICR allocation policies. That committee is expected to finalize that work in the Fall of 2012.

It is important to remember, however, that even the best possible policy for distributing ICR will not in itself increase the number of ICR dollars available for distribution. So long as the cost of research exceeds the total revenues available from direct and indirect research funding, ICR distribution will need to be supplemented by funds from other sources. The question of how ICR generated by grants administered by the research institutes should be distributed is ultimately contained within the larger questions of what level of financial support, from what funding sources, is necessary to enable Beckman and IGB to perform at a level of research productivity appropriate to these institutes, and, more generally, what level of financial support, from what funding sources, is necessary to support the broader research mission of the campus. As a university, we have chosen to invest significant resources in Beckman and IGB because their particular commitments promote innovative interdisciplinary research in key areas. But we are also broadly invested in research productivity across the campus. Making sure we honor both these obligations will always require sound financial judgment as well as sound, carefully constructed ICR distribution policies. Ultimately, Chancellor Wise, Provost Adesida, and Vice Chancellor for Research Schiffer will make the final decisions on how best to meet the pressing needs of all campus units so that we optimally support the campus research enterprise. The work of the Project Team and the ICR review committee will no doubt greatly aid Chancellor Wise, Provost Adesida, and Vice Chancellor Schiffer as they evaluate and make these critically important decisions.

B. Interdisciplinary Research and the Academic Structure

The project team identified some of the issues that arise from this fundamental tension in the relationship between the institutes and the academic units, in addition to the direct financial issues discussed above. One significant source of tension between academic units and the interdisciplinary research institutes is the diminished presence of some institute-affiliated faculty members in their home departments. The directors of IGB and Beckman appropriately acknowledge that the institutes could not exist without the steady stream of world-class faculty and students supplied by the academic departments. The institutes point to the resources and facilities that they offer that foster impressive interdisciplinary collaborations and accomplishments and rightfully note that they supply a one-of-a-kind research environment and opportunities that greatly enhance the campus recruitment and retention efforts. But many departments are pressed to meet their teaching and service obligations and are struggling to maximize financial resources to cover all their missions. And beyond simply meeting the responsibilities shared by the faculty of a department, the loss of the regularized presence of valued faculty members to the institutes is at times a source of distress to departments who hired these faculty members. Because of the negative impact of having human and financial resources externally diverted, some departments are concerned about faculty members disproportionately focusing their efforts and attention outside their home departments.

There is no easy or obvious way to make this source of stress go away. It is generally and rightly acknowledged that the overall contributions of the institutes are valuable and essential to the campus we have become. And it is important that faculty members whose research is
extensively focused through the institutes honor their fundamental responsibilities to their home departments as fully as possible. But for departments, the reduced presence of some faculty is, essentially, a recurring cost of the decision to create the interdisciplinary institutes. Monitoring and managing and mitigating the effects of this cost are obligations – in departments, in the colleges, in campus administration, and in the institutes themselves – that come with the investment.

The Project Team also noted that because “one of the primary challenges noted by many is the fact that both the BI and IGB must work with so many different units,” communication tends to be unidirectional from the institutes to the units and that “cooperation exists mainly between individual investigators and the Institutes rather than in direct ways with the Departments.” Based on these observations, the Project Team recommended that “the Institutes should develop more frequent and formal substantive communications with Department Heads and other stakeholders at the University.” In response to the feedback that it received, the Project Team identified several substantive areas in which communication could be improved. These included space allocations, public relations, alumni solicitations, faculty reviews, and research themes and program formulation within the institutes. Better communication and increased collaborations across all aspects of the working relationships can enhance the successes of both the institutes and the academic departments and in so doing also increase the support provided to faculty members who are at the intersection of the important missions being served by both units. For example, with respect to the concerns regarding appropriate departmental attribution for faculty accomplishments, the academic units, institutes and the Division of Management Information have the collective resources to enable a collaborative effort that ensures proper recognition in public affairs and external rankings.

It should be noted that Provost Communication No. 23, Appointment and Review of Faculty Members Who Have Budgeted Joint Appointments and/or are Engaged in Interdisciplinary Scholarship, addresses some of the issues identified in the project report. Communication No. 23 provides important guidance to the academic units and the institutes regarding how to make joint appointments, ensure appropriate mentoring, structure annual reviews (including third-year review) and conduct promotion and tenure reviews. Communication No. 23 is not intended, and could not, prescribe all aspects of how departments interact with their faculty members who are engaged in interdisciplinary scholarship; rather, it calls upon units to develop the procedures and policies necessary to ensure fair and orderly processes. In developing those unit policies and procedures, Communication No. 23 explains that “fundamental to managing joint appointments and/or faculty engaged in interdisciplinary scholarship are principles of mutual cooperation, open sharing of views, and fairness to the faculty member.” It is incumbent upon academic departments to ensure that they have clear policies governing faculty service and effort allocation so that expectations placed upon faculty members who are affiliated with the institutes are transparent and well understood. Establishing clear expectations between faculty and their home departments and mutual understanding between those departments and the institutes regarding matters of research administration at the outset of all joint appointments is critically important and should go a long way towards avoiding some of the issues identified by the Project Team.
There is no way to resolve all the tensions between interdisciplinary research institutes that are outside the primary academic structure of the campus and discipline-based departments housed within the primary academic structure. But improvements can be made to the interactions between the institutes and the academic departments and between the departments and their faculty members with institute affiliations. The Provost's Office and the Office of the Vice Chancellor for Research can play a meaningful role in mediating the inherent tensions and supporting all these critically important relationships. It will, of course, be left to Provost Adesida and Vice Chancellor Schiffer to establish how to most effectively fulfill that role. Awareness of the natural tensions, however, can be productive and can help to ensure that we optimize the many and deep contributions of our research centers while appropriately supporting the faculty and their academic home departments.

Sincerely,

Richard P. Wheeler
Interim Vice Chancellor for Academic Affairs and Provost