

RESOLUTION AMENDING THE NATURAL SCIENCES RESEARCH ADVISORY COUNCILS

WHEREAS, in its resolution establishing the Natural Sciences Research Advisory Councils, the Senate proposed the formation of both a Local Advisory Council and an External Advisory Council, and

WHEREAS, the Local Advisory Council now believes that an alternative structure for the External Advisory Council would be more effective than that proposed in the original resolution, and

WHEREAS, the Local Advisory Council wishes such modifications to preserve the intent of the original resolution while more sharply focussing the roles of the external advisors,

THEREFORE, BE IT RESOLVED, that the Senate repeals the original resolution establishing the structure and function of the Natural Sciences Research Advisory Councils and proposes instead the following replacement structure, to be in effect for the remaining year of the two-year trial period approved in the vote on the original resolution.

NATURAL SCIENCES RESEARCH ADVISORY COUNCILS

The goals of the Natural Sciences Research Advisory Councils established in this resolution are unchanged from those described in the original resolution. Namely, they are to provide expert guidance from both global and local perspectives that will help Cornell maintain its reputation as a leading teaching and research institution, and to ensure that Cornell utilizes its resources effectively and responsibly.

The structure and function of the Local Advisory Council are largely unchanged from those in the original resolution. The differences all concern interactions with External Advisory Councils. Specifically, the makeup and operation of the Local Advisory Council will be as follows:

I. Local Advisory Council

The Local Advisory Council will be composed of 10 faculty members appointed jointly by the administration and the Faculty Senate. Nominations will be solicited from faculty in the natural sciences, including engineering. Members will serve for staggered three-year terms, so that approximately one third of the membership will be replaced each year. The Local Advisory Council will play

strictly **advisory and organizational roles**. Members who have a direct interest in any proposal being considered will not take part in the voting on that proposal.

The Local Advisory Council will:

A. advise the administration on issues and proposals in the area of the natural sciences that may involve expenditure of significant resources by the University, but do not represent major strategic changes in emphasis or direction of the research enterprise at Cornell,

B. advise the Vice Provost for Research on the need for *ad hoc* External Advisory Councils,

C. advise the Vice Provost for Research on the membership of *ad hoc* External Advisory Councils, and on the questions to be addressed by such external groups,

D. act as the primary faculty liaison with the *ad hoc* External Advisory Councils, ensuring that they receive all relevant information necessary for their tasks, and providing the local perspective on research at Cornell,

E. present recommendations of the *ad hoc* External Advisory Councils to the Faculty Senate at the first Senate meeting following the receipt of such recommendations.

F. meet with the external advisory committees that already exist for the research centers of the University.

II. External Advisory Councils

The External Advisory Councils (excluding those already in existence) will be *ad hoc* and will be constituted by the office of the Vice Provost for Research, in consultation with the Local Advisory Council.

A. Each *ad hoc* Advisory Council will consist of approximately five internationally recognized leaders in the field(s) appropriate to the initiative under consideration. (The breadth of definition of a "field" will generally be case specific, and decided as part of the selection procedure for the *ad hoc* council.)

B. The mandate of these groups will be to advise the faculty and the administration on the timeliness of major initiatives of the Cornell faculty and on the appropriateness of the plans for pursuing those projects. This advice will be

sought only for those major initiatives requiring significant expenditure of University resources.

C. They will interact extensively with both the faculty initiating the project and the Local Advisory Council in order to gather information on the current status and future plans of related research efforts at Cornell. They will provide written recommendations to the administration and to the Local Advisory Council.

Rationale

The overall aim of the proposed structure is the same as that in the original resolution establishing the Natural Sciences Advisory Councils, namely to ensure that the administration has the best possible advice to guide it in the expenditure of Cornell's limited resources on research in the area of the natural sciences.

The Local Advisory Council is of the opinion that another purpose of the Natural Sciences Advisory Councils, although not spelled out in the original resolution, should be to ensure that decisions on major research expenditures at Cornell be made solely on the scientific merits of each case. In particular, external advisory groups can guard against exertion of undue influence on these decisions by individuals who happen to be in positions of particular power or prestige at Cornell.

The Local Advisory Council believes that these aims preserve the spirit of those in the original resolution. The reasons for the change in structure of the External Advisory Council are practical. Namely:

A. The original proposal would have created an External Advisory Council that was in some ways too broad and in other ways not broad enough in its coverage of the natural sciences. With just five people, no matter how eminent, it would be difficult to cover the vast range of research in the natural sciences at Cornell. In that sense, then, the coverage of the original External Advisory Council would not have been broad enough – risking the possibility that two proposals of equal merit might not have received equal review if one of them happened to match the interests of an external expert whereas the other did not. In the original proposal there was no mechanism to define the makeup of the External Advisory Council in order to avoid this problem.

The sense in which the expertise of the group might have been too broad is that a small group of individuals with widely different areas of expertise would

probably not have been able to provide clear and coherent recommendations that would have been of real value.

B. The originally proposed annual cycle of visits by the External Advisory Council would not have fit well with the realities of research funding. Many major initiatives are driven by opportunities that arise from Federal funding agencies. These initiatives do not fall in neat annual cycles with long lead times. Rather, they are sporadic, and may have response times of only a few months. Furthermore, bringing in a prestigious external group on a fixed schedule, even when there did not happen to be any new initiative for them to discuss, would probably not have been a good way to showcase the best of Cornell's research efforts.

C. The Local Advisory Council is strongly of the opinion that research initiatives should be faculty driven. In the original proposal, the External Advisory Council would have made their recommendations about major new directions in research to the central administration. Such an approach carries the risk of promoting precisely the kind of top-down management of research that the Natural Sciences Advisory Councils were designed to guard against.

D. The original resolution did not take into account the fact that a large number of external advisory committees already visit the Cornell campus.

The proposed restructuring of the External Advisory Council seeks to address these difficulties, as follows:

A. *Ad hoc* External Advisory Councils will be constituted from experts in field(s) appropriate to the project under consideration, and so the problems of breadth of coverage of research fields that were addressed above should no longer apply.

B. By constituting *ad hoc* external groups one can avoid the timing mismatches between initiatives from funding agencies and visits of the External Advisory Council that were outlined in B above.

C. By initiating visits of *ad hoc* External Advisory Councils in response to major research proposals from Cornell faculty, one can ensure that the research Cornell continues to be a bottom-up, faculty-driven enterprise, and that all major proposals for expenditure of the Universities resources on research in the natural sciences receive an objective and authoritative evaluation.

Whether a proposal for a major research initiative should be brought before any external group will be decided by the Vice Provosts for Research, Life Sciences and Physical Sciences and Engineering in consultation with the Local Advisory Council. Of primary concern in this decision will be the need to

expend significant resources of the University on the project. Projects that are entirely externally funded (and anticipated to be so in the future) will generally not result in the constitution of an *ad hoc* External Advisory Council by this procedure, since such projects usually involve the formation of their own external advisory committees.

D. By communicating with the existing external advisory councils for the research centers – for example, those for Biotechnology, the Cornell High Energy Synchrotron Sciences center (CHESS), the Cornell Nanofabrication Facility (CNF), the Cornell Center for Materials Research (CCMR), the Cornell Electron-positron Storage Ring (CESR) and the National Astronomy and Ionosphere Center (NIAC) – the Local Advisory Council can be kept more fully aware of current research in the natural sciences on the Cornell campus and elsewhere, and can thereby view any new initiatives from a better informed perspective.