

Life Sciences Task Force (LSTF) Executive Summary

Life Sciences is arguably the major frontier in the sciences, with expanding opportunity for discovery, global impact, and financial support. The Life Sciences are inherently interdisciplinary, with many of the opportunities lying at interfaces with the Physical and Social Sciences and Engineering. At Cornell, Life Science programs span at least six colleges with very limited centralized coordination and administration, in contrast to the physical sciences and engineering that are largely confined to one or two colleges. This distributed character of Cornell Life Sciences offers opportunity for distinction in multiple areas, but also presents special challenges for achieving and maintaining excellence. The task force recommendations put forward herein are based on the fundamental premise that a well-coordinated and inclusive Life Sciences program that engages all relevant units and faculty will enhance the overall quality of life sciences at Cornell University and will maximize the use of resources and faculty effort, hence decreasing programmatic costs at the level of the Colleges. The committee recommends the following, with the detailed motivation for each recommendation elaborated in the report proper:

Research and Administration:

1. **Coordinate the Life Sciences via a Vice Provost for Life Sciences who reports directly to the Provost and interfaces with the Senior Vice Provost for Research** to deal with the special challenges of the wide distribution of the life scientists, oversee the core facilities and fellowship program, and enhance faculty and student recruitment and retention across colleges.
2. **Establish an annual budget for the office of Vice Provost for Life Sciences** to promote cross campus unification and cooperation in the life sciences, drive recruitment and retention of the best faculty and students, increase their overall level of content, and in doing so ultimately save money by reducing the need for replacement.
3. **Solidify and build in areas of computational biology, genetics and genomics, and molecular and cellular biology**, which form the foundation for future progress on questions in the Life Sciences across the University in agricultural, biomedical, behavioral, environmental and organismal/biodiversity arenas and lie at the interface among the life, social and physical sciences and engineering.
4. **Life science units that do not bring distinction to the university in research and/or have not successfully integrated Extension/Outreach with research should be considered for disinvestment, reorganization, closure or merger by the colleges** to prune weakness and build strength.
5. **Examine best practices in departmental governance and harmonize these practices across the university** to achieve the best leadership in every department.

Undergraduate Education:

1. **Develop a coordinated life sciences curriculum at the undergraduate level** to minimize duplication, promote interaction across the University, and provide an excellent foundation in biological sciences for all students.
2. **Reexamine the 2008 report on “Teaching Introductory Biology at Cornell University” in light of the work of the Biology Curriculum Transition Committee** to assure that recommendations can be effectively implemented.
3. **Develop a global health major** to build distinction in a major interdisciplinary area uniquely suited to research and teaching expertise at Cornell.

Graduate Education:

1. **Consolidate Life Sciences graduate fields and coordinate graduate student recruitment among “clusters” of related life science fields** to simplify the field system and improve graduate student recruitment per the previous Life Science Graduate Task Force recommendations.
2. **Foster and leverage funding for graduate education in all graduate fields and disciplines** to develop new avenues of support and recruit the best students. Specific approaches include:
 - *Reduce tuition rates for Graduate Research Assistants to recognize and encourage grant support of students.*
 - *Review the allocation of teaching assistantships among units.*
 - *Incent and reward programs that successfully obtain extramural training grants to foster increased support via this mechanism.*
 - *Maintain the Presidential Life Sciences Fellowships program to assure excellence in graduate student recruitment at the interface of life sciences with the physical and social sciences.*