

APPENDIX O

October 17, 2002

MEMORANDUM

To: Committee on Educational Planning, Policies and Programs

From: Molly Corbett Broad

Subject: Establishment of the Center for Integrated Fungal Research at North Carolina State University.

Request to Establish

In October 2001, North Carolina State University received authorization to plan the Center for Integrated Fungal Research. The planning is now complete, and NCSU has submitted a request to establish this unit as an institutional research center. The following sections briefly summarize the information provided by NCSU to satisfy the requirements of Chapter 1200.6[R] in the *University of North Carolina Policy Manual*.

Goals and Objectives

Fungi are an ecologically and genetically diverse group of microorganisms that have an enormous impact on humans, both positive (e.g., antibiotics, industrial fermentation processes) and negative (plant and animal diseases). Fungi are also the simplest life forms related to humans. Thus researchers use fungi to gain insight into more complex biological processes, including the molecular basis of human disease. The mission of the Center for Integrated Fungal Research is to combat the threat of fungal and human disease and to enhance industrial application of fungi. The center will use the tools of genomic sciences to integrate a broad spectrum of approaches and expertise for investigating and analyzing fungi of agronomic and industrial significance. To that end, it will pursue the following scientific objectives:

- Discover and analyze complete gene sets from major plant pathogenic and industrially important fungal species;
- Create and distribute affordable, durable genomic resources to the fungal research community;
- Decode the molecular basis of disease caused by fungal pathogens;
- Provide training and instruction for students, post-doctoral fellows, and visiting scientists in fungal biology and genomics.

Relevance to Institutional Mission; Relationship with Existing Academic Units

In addition to advancing basic knowledge of biological processes, the center will enhance NCSU's mission to strengthen and expand genomic sciences. Based in the Department of Plant Pathology, it will take advantage of the institution's research leadership in agriculture, forestry, and veterinary medicine, as well as its emerging strengths in bioinformatics and functional genomics. It will also collaborate with the departments of Microbiology and Forestry (NCSU), the Bioinformatics Research Center (NCSU), the Center for the Biology of Nematode Parasitism (NCSU), the North Carolina Biotechnology Center (RTP), and other units throughout UNC and RTP. No other similar units exist within UNC.

Anticipated Effects on Instructional Programs

The center will provide unique learning opportunities for high school through post-doctoral students. The quality of the research faculty and the facility will enhance NCSU's recruitment offerings for students in the biological sciences, genomic sciences, informatics, statistics, physical and mathematical sciences, and business. Opportunities for interns across departments and colleges are being planned and will be encouraged.

Administrative Structure

The center's proposed Director is Dr. Ralph A. Dean, Professor of Plant Pathology and Director of the Fungal Genomics Laboratory. The Director will report to the Dean of the College of Agriculture and Life Sciences. A Scientific Advisory Board, composed of five to seven leading fungal biologists and genomics experts from industry and academia, will provide programmatic and scientific advice to the Director and center faculty.

Budget and Anticipated Sources of Funding

The center's first-year budget is estimated to be \$4.5 million, deriving primarily from external funding. Budgets for the subsequent four years are expected to remain at that level or increase, based on the track record of the center's faculty in receiving external funding from sponsors such as the National Science Foundation, the National Institutes of Health, the U.S. Department of Agriculture, and industries in the RTP area. The College of Agriculture and Life Sciences provides salary support for the center's faculty, administrator, and program assistant. No additional state funding is requested with this establishment.

Space and Capital Needs

The center is currently housed in the Partners II and the Toxicology buildings on NCSU's Centennial Campus. In the future, the center will be housed in the Partners III building, which is scheduled for completion in 2005. The center has no immediate needs for additional capital or resources.

Recommendation

It is recommended that North Carolina State University be authorized to establish the Center for Integrated Fungal Research.