

APPENDIX I

Request for Authorization to Establish a Master of Microbial Biotechnology at North Carolina State University

Introduction

North Carolina State University notified the Office of the President of its intent to plan a Master of Microbial Biotechnology degree program (CIP 26.1201) on April 23, 2003. The University requests authorization to establish the degree program in January 2004.

Program Description

The proposed master's degree in Microbial Biotechnology is an interdisciplinary program developed by the Department of Microbiology, the Biotechnology Program, and the College of Management. It is anticipated that graduates of this program will become highly valued technical managers in biotechnology companies in North Carolina and the Southeast. The proposed program will provide students with training in three areas directly relevant to the biotechnology industry, including the theoretical basis for the role of microorganisms as the workhorses of biotechnology; intensive laboratory training in the molecular techniques involved in microbial biotechnology; and a comprehensive introduction to the management of money, people, processes, and information. The program will be built upon a large number of existing courses from divergent disciplines in a structured format aimed at generating "industry ready" graduates.

Program Need

The proposed program builds on the University's existing strengths in biotechnology and combines this with the skills necessary for graduates to operate and succeed in a commercial rather than academic or research environment. The program provides the opportunity for NC State to train the managerial mainstays of this industry and to make a much-needed contribution to the workforce of the most rapidly growing technology sector of the state's economy. Estimates by the NC Biotechnology Center indicate the expected growth of the industry in North Carolina over the next decade will require between 2,000 and 3,000 new employees per year. Approximately 10 percent of these positions will require graduates with MS degrees. Students will be drawn from various biotechnology-related undergraduate programs at NC State and other universities and from current employees in the biotechnology industry who are seeking career advancement. It is anticipated that 20 full-time students will be enrolled by the fourth year of the program.

Resources

New funding will come from enrollment increase funds and internal reallocations; no other state funds are requested.

Recommendation

It is recommended that the Board of Governors approve the request to establish a Master of Microbial Biotechnology degree at North Carolina State University effective January 2004.