

APPENDIX F

Request for Authorization to Establish a Bachelor of Science Degree in Bioprocessing Science at North Carolina State University

Introduction

NC State University notified UNC-GA of its intent to plan a BS in Bioprocessing Science (CIP 41.9999) in April 2005. NCSU requests authorization to establish this program in October 2006.

Program Description

The proposed Bioprocessing Science program will prepare scientists for careers in the bio-industries and will complement existing food science and nutrition science programs offered through the Food Science Department. Students in the three programs will take common core courses but will diverge to more focused coursework depending on their specialization. Graduates of the program will have the technical competence and hands-on experience to immediately contribute to the NC biomanufacturing and pharmaceutical industries. The Department will draw from its expertise in training professionals with a breadth of knowledge in microbiology, biotechnology, engineering, and biochemistry. In addition to attaining a strong technical background, students will understand other relevant subject matter including quality control and assurance, validation procedures, and ethical and regulatory issues.

Program Need

According to the NC Biotechnology Center, NC is extremely well positioned to become the world's preeminent biomanufacturing center over the next two decades. Currently, the biggest capacity shortage facing NC is an available skilled workforce. Bioprocessing is a broad term encompassing the research, development, manufacturing, and commercialization of products prepared from or used by biological systems, including food, feed, pharmaceuticals, and cosmetics. Today, 20,000 North Carolinians work as biotechnologists in the pharmaceutical and biopharmaceutical industries. Approximately 3,000 new trained professionals are required annually but fewer than 300 are supplied. The proposed program in coordination with other NCSU efforts such as the Biotechnology Program and the Biomanufacturing Training and Education Center uniquely positions NCSU to help attract new businesses to NC. It is anticipated that by the fourth year the program will enroll 100 full-time and 20 part-time students.

Resources

One new faculty position will be supported by funds allocated by the Biomanufacturing Training and Education Center (BTEC). The new BTEC facility will provide specialized labs needed for some courses. Significant support from grants and contracts from the biomanufacturing industry are anticipated.

Recommendation

It is recommended that the Board of Governors approve the request to establish a Bachelor of Science degree in Bioprocessing Science at North Carolina State University effective October 2006.