

STATE BOARD OF COMMUNITY COLLEGES
Allocation for BioNetwork Host Colleges
FY 2020-21

Request: The State Board of Community Colleges is requested to approve a \$4,101,447 funding allocation to the BioNetwork host colleges from July 1, 2020 through June 30, 2021. This amount represents the current operational funds for salaries, equipment, and other costs for FY 2020-21.

Background: The NC Community College System (NCCCS) has been vital in supporting the NC economy through training and education programs that have consistently produced a steady stream of qualified workers and high quality training for new processes and technologies. As the manufacturing base of the State shifted from traditional to high-technology, skill-intensive biomanufacturing in the 1980s and 1990s, the NCCCS was at the forefront in supporting the rising preeminence of the bioscience industry with the establishment of BioNetwork in 2004. Originally funded through a Golden LEAF Foundation grant, BioNetwork was funded on a recurring basis by the NC Legislature in FY 2005-06.

The bioscience sector has flourished in NC through the help of BioNetwork. North Carolina is the 3rd largest biotechnology cluster in the country, behind only California and Massachusetts, with 735+ life science companies. Since 2016, state bioscience firms employed more than 75,000 people in 3,843 individual businesses. North Carolina's 23.5% job growth in bioscience since 2001 is the highest among the ten largest bioscience employer states, with a 2.5 percent job growth from 2014 to 2016. The total economic impact of the state's life science industry exceeded \$83 billion in 2018, with more than 240,000 jobs, accounting for more than 4 percent of total employment in the state. (Colliers International 2017 & TEconomy 2018). A joint effort is underway to ensure that the NC BioPharma and emerging Gene/Cell Therapy industry training needs continue to be met. The 2019 *Window on the Workplace* report highlights the growth in the state's BioPharma space, with more than 5000 new jobs anticipated over the next five years.

BioNetwork has supported this growth through the provision of industry relevant, hands-on training at the industry-site and in strategically located BioNetwork laboratories, including:

- (1) **Food, Beverage and Natural Products Lab** facility hosted by Asheville-Buncombe Technical Community College (A-B Tech);
- (2) **Instructional Design and Development**, hosted by Gaston College, provides development of virtual, interactive learning modules, 3-D simulations of actual industry training scenarios, and videos that support BioNetwork training services and NCCCS college programs;
- (3) **STEM Engagement and Outreach Services** extends training and education for the bioscience workforce by conducting training and education workshops for students and teachers in K-12 and community colleges and is hosted by Pitt Community College (PCC);
- (4) **Biomanufacturing Lab** facility, which includes an aseptic training center, a validation academy, and a microbiology laboratory hosted by Wake Technical Community College (WTCC).

BioNetwork serves as the bioscience training component of Customized Training, and its services extend to all 58 community colleges.

The recommended allocation will be used to fund personnel, equipment, and operating expenses at the host colleges to ensure the responsive, qualified, and relevant service to North Carolina's growing bioscience workforce needs.

Method of Allocation: The recommended allocation for each host college is based on input from the BioNetwork Leadership Team, evaluation of the prior year's metrics, and industry growth projections derived from engagement with workforce development stakeholders. The proposed funding will enable the host colleges to meet their education and training needs for the 2020-21 fiscal year. The Vice President of Economic Development, in consultation with the Executive Director of BioNetwork, reserves the right to recall unused funding for reallocation to other BioNetwork host colleges as needed.

Recommended Host College Budget Allocations:

Asheville-Buncombe Technical Community College: \$838,051

Focus Area: Industry Training - Food, Beverage, and Natural Products

The BioNetwork staff in the Food, Beverage, and Natural Products industry sector provides relevant onsite and industry-site training and education through Customized Training, the Small Business Center Network and Continuing Education. The Natural Products Laboratory has become a national center for natural products innovation where researchers and entrepreneurs can find start-up information, educational programs, support coordination, mentoring, and referrals to launch their enterprise. BioNetwork also operates a Food Laboratory for quality testing of food products.

Gaston College: \$961,056

Focus Area: Instructional Design and Development

The BioNetwork team hosted by Gaston College creates videos; interactive, electronic modules; and virtual learning objects that are utilized by the NC Community Colleges. The virtual media products are created in partnership with companies and consist of 3-D simulations of industrial processes, environments, and equipment; educational modules that incorporate video demonstrations, interactive simulations, and assessment tools; and virtual learning tools. In addition, the BioNetwork staff at Gaston College maintains the web presence for BioNetwork.

Pitt Community College: \$756,962

Focus Area: STEM Engagement and Outreach

The activities at PCC focus on developing and coordinating statewide Science, Technology, Engineering and Mathematics (STEM) engagement and outreach activities. Educational engagement includes training community college faculty to understand and incorporate learning tools to advance the knowledge and skills of their students. This training helps students to successfully enter into the biotechnology and life science workforce. In addition, these training activities help K-12 and community

college students connect educational pathways to career goals, and presenting workshops/seminars helps educators and students understand the benefits and variety of careers in the life science sector.

Wake Technical Community College: \$1,545,378

Focus Area: Industry Training - Biomanufacturing

The BioNetwork Capstone Center, located on the Centennial Campus of North Carolina State University (NCSU) as part of the Biomanufacturing Training and Education Center (BTEC), focuses on offering hands-on, short course training in biomanufacturing and pharmaceutical operations to incumbent workers, new hires, and community college students in a simulated cGMP (current Good Manufacturing Practice) facility. The activities of the Capstone Center include providing biomanufacturing training through Customized Training and providing continuing education short courses, workshops, and seminars to industry, educators and NC Community College students.

Fund Source and Allocation Period: Funding is available from the FY 2020-21 General Fund Appropriation for BioNetwork. The allocation period is July 1, 2020 through June 30, 2021.

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