

The North Carolina Biotechnology Center

Response to NER Request

February 8, 2011

1. Overview of what your entity does:

The Biotechnology Center drives biotech job creation by supporting life-science researchers, businesses and educators across the state. Those connections – from scientific muscle to small-company growth to superior workforce training programs – enable an international recruitment effort with a strong message: join a world leader in biotechnology.

The Biotech Center's programs have four goals: commercialize research, grow young biotech companies, develop the state's scientific workforce, and recruit new companies and expansion projects.

These programs leverage significantly greater investment from other sources – primarily federal grants and private investment. A few representative examples of programs in each area, with activities leveraged, are detailed below.

Innovation, Research Commercialization and Product Creation

Biotech Center grant programs stimulate innovation and build capacity statewide for biotechnology research. Programs at this stage develop a life-science idea to a point that a company can market it as a product that diagnoses or treats disease, improves the environment or meets the increase in global demand for food. Examples include:

- The Collaborative Funding Grant fuels university-company research projects, which historically win **\$41** more for each **\$1** granted. (ncbiotech.org/cfg)
- The BATON program has helped to create **17 companies** from university research and to build a **network of 300** service providers to help these companies launch. (ncbiotech.org/baton)

Biotech Growth Companies and Idea Commercialization

Because their technology is so young, small companies have few options for funding outside of federal grants – most of which won't fund commercialization efforts. Biotech Center loans fill these gaps with funding to support company inception, technology development and corporate growth. Biotech Center staff members with business and technology development experience also provide a range of services to support the commercialization efforts of North Carolina life sciences companies.

Companies on average leverage **\$103** for every \$1 loaned by Biotech Center programs in additional funding. (ncbiotech.org/growth)

The Centers of Innovation grant program supports the growth of emerging biotechnology-related industry sectors in North Carolina. The expansion of these sectors

through the COIs' public-private partnerships will add new sources of revenue into the state's economy. COIs are currently active in marine biotechnology, advanced medical technologies, nanobiotechnology and drug discovery.

Workforce Development and Education

Companies small and large need a skilled workforce to fill the jobs they create. The Biotech Center's education staff works with the NCBioImpact partnership – including the UNC System, NC Community College System and industry – to create the biomanufacturing workforce emulated all over the world. This effort has become a competitive advantage for the state.

The Biotech Center's education grants and programs support curriculum development and teacher training at all education levels, from K-12 to community college, university and beyond. All education programs retain an industry focus. For example, our undergraduate research fellowships include company partners and leverage company funding.

Our summer workshops each year give teachers insights on using biotechnology in the classroom. To date, our 1600 teachers trained have taught more than 600,000 students in 98 counties. (ncbiotech.org/classroom)

Recruitment and Economic Development

The preceding programs are designed to grow biotechnology companies in North Carolina from North Carolina research. Offices statewide – in Asheville, Charlotte, Greenville, Research Triangle Park, Wilmington and Winston-Salem – ensure the programs bring the benefits of biotechnology to all areas of the state. The Biotechnology Center also works with statewide partners to recruit biotechnology companies to the state.

One of the Biotech Center's earliest recruitment projects was a British company that is now the U.S. headquarters of GlaxoSmithKline. The Biotech Center's list of successful recruitment and retention projects is long: Adhezion, Ameritox, Bayer CropScience, Biotage, DSM, Hospira, Medicago, Merck, Novartis Vaccines and Diagnostics, Novo Nordisk, Novozymes, Syngenta, Talecris, Thermo Fisher Scientific, Valeant Pharmaceuticals, United Therapeutics and more.

These companies pay their North Carolina workers an average salary of \$75,000. (ncbiotech.org/recruit)

With \$74 billion in annual revenues, agriculture is one of North Carolina's top sectors. By applying the tools of biotechnology to create new crops, find new uses for existing crops and improve agricultural efficiency, North Carolina can create even more economic activity in this sector, particularly in rural areas. With that goal in mind, the Biotech Center's AgBiotech Initiative is forging partnerships between farmers and scientists,

supporting ag-specific projects that speed product commercialization, and engaging leading agribusiness companies.

Service and Support

The four focus areas each target major gaps in the pipeline from idea to product to jobs. Many other Biotech Center efforts target smaller gaps, including grant-writing workshops, topic-specific conferences and professional development opportunities.

Information is a key to that community, and the Biotechnology Center's Library and Information Services group streamlines access to information on all facets of commercial biotechnology for Center staff and users statewide. In the 2009-2010 fiscal year, the library filled 1,447 requests for educational videos, reference information and market research.

The Corporate Communications team coordinates North Carolina's participation in biotechnology trade shows as well as communication about the state's life science activity. The team maintains the Biotech Center's website, which receives more than 400,000 visits each year. In the 2009-2010 fiscal year, the Biotech Center's Hamner Conference Center welcomed more than 29,000 guests to 1,761 meetings.

More information regarding specific programs is available at the Biotech Center's website, ncbiotech.org. Specific budget and return-on-investment information follows in this document.

2. Performance measures, accomplishments and/or benchmarks used to measure your progress

Our long-term focus put the pieces in place to establish North Carolina as a leader in biotechnology. At the end of 2010, the industry numbered 538 companies and 58,495 employees. That was a 2.5 percent increase in jobs from the end of 2009, and a **4.1 percent overall increase since 2008.**

<i>Bioscience Employee Growth</i>	
<i>Source: BioSciNC company surveys</i>	
<i>Year</i>	<i>Employees</i>
2008	56,187
2009	57,053
2010	58,495

The Battelle Technology Partnership Practice quantified the impact these companies and their activities make in North Carolina. Battelle calculated the direct, indirect and induced impacts of bioscience in the state at \$64.6 billion in annual economic activity - \$45.8 million of it direct. This generates \$1.92 billion in state and local taxes, and supports 226,823 total jobs.

Battelle conducted its survey in both 2008 and 2010, based on data ending in 2006 and 2008, respectively. The growth between the two years is noted in the table below.

<i>Bioscience Impact in North Carolina</i>		
<i>Source: Evidence and Opportunity, 2008 and 2010 reports. Battelle Technology Partnership Practice</i>		
	<i>2008</i>	<i>2010</i>
<i>Direct activity</i>	\$28.7 billion	\$41.2 billion
<i>Total activity</i>	\$45.8 billion	\$64.6 billion
<i>Payroll</i>	\$9.4 billion	\$12.7 billion
<i>Direct employment</i>	53,212	56,842
<i>Total employment</i>	180,007	226,823
<i>State and local taxes paid</i>	\$1.44 billion	\$1.92 billion

In Battelle's national report on the bioscience industry, North Carolina ranks among the fastest-growing states with strong biotechnology clusters. Our rate of 29 percent is comparable to Massachusetts, the growth-rate leader. North Carolina's bioscience growth rate is double the national rate and five times the rate of the state's overall private-sector growth, according to Battelle.

3. Total budget for FY 2009-2010 with a breakout of the source of funds

<i>Granting Programs</i>	<i>Total FY 2010 Budget</i>	<i>State Appropriation</i>	<i>%</i>	<i>Other Funds Note (2)</i>	<i>%</i>
<i>Innovation, Research Commercialization and Product Creation:</i>					
Science & Technology Development	4,076,682	3,473,155	85%	611,261	15%
<i>Biotech Growth Companies and Idea Commercialization:</i>					
Centers of Innovation	3,984,083	3,910,851	98%	73,232	2%
Business & Technology Development	2,732,713	1,370,356	50%	1,305,210	48%
<i>Workforce Development and Education:</i>					
Education & Training	1,612,376	1,197,467	74%	414,909	26%
<i>Recruitment and Economic Development:</i>					
Statewide Development	350,000	250,000	71%	100,000	29%
Subtotal	12,755,854	10,201,829	80%	2,504,612	20%
<i>Non-granting Programs</i>					
<i>Recruitment and Economic Development:</i>					
Economic & Industrial Development	690,601	290,373	42%	400,228	58%
AgBiotech	274,471	-	0%	274,471	100%
Statewide Development	1,526,439	1,377,813	90%	148,626	10%
<i>Other Biotechnology Related Services and Support:</i>					
Hamner Conference Center	413,445	-	0%	413,445	100%
Library Services	520,431	469,968	90%	50,463	10%
Subtotal	3,425,387	2,138,154	62%	1,287,233	38%
<i>Governance & Administrative</i>					
Board of Directors	23,550	23,550	100%	-	0%
Corporate Administration (1)	3,123,075	1,705,967	55%	1,417,108	45%
Subtotal	3,146,625	1,729,517	55%	1,417,108	45%
TOTAL FY 2010 BUDGET SHOWING SOURCE OF FUNDS	19,327,866	14,069,500	73%	5,208,953	27%
Administrative Expenses as a % of Total Budget	16.28%				

Notes:

- 1) Includes executive, finance, human resources, communications, information technology, facility and G&A.
- 2) Other funds includes everything other than the state appropriation including funds awarded from the Golden Leaf Foundation, federal grants, contracts for services, and other external sources of funds.

4. Total amount of funds held in cash, short-term investments, and long-term investments

(As of December 31, 2010)

Obligated Cash	\$24,475,907
Long Term Investments (1)	479,191
	<u>\$24,955,098</u>

Obligations (Committed funds):

Grant and Loan Awards Payable	\$8,343,353
Construction Loan Payable (2)	5,000,000
Centers of Innovation (3)	7,839,670
Operating Reserve (4)	<u>3,000,000</u>
	<u>\$24,183,023</u>

- (1) The Biotechnology Center does not have any short term investments
- (2) The Biotechnology Center is required to maintain a minimum deposit of \$4,000,000 for as long as there are any funds outstanding under the loan.
- (3) The Centers of Innovation program commits \$2.5 million over 4 years at the launch of a new COI. Since the onset of this program, 4 Centers of Innovation have been created. Outstanding commitments to these COI's are as follows:
- Medical Device (ibilliti) \$1,250,000
 - Nanobiotech (COIN) \$1,450,000
 - Drug Discover \$1,150,000
 - Marine Biotech \$2,250,000
- (4) Our first state appropriation disbursement is typically in October.

5. Percent of funds (all sources) used for administrative purposes:

16.28% See table on page 5 for detail.

6. Employees

a. Number of FTE

The North Carolina Biotechnology Center currently has 76 full-time equivalent employees.

b. Salaries of top 5 highly compensated individuals

• President and CEO	\$226,062
• Senior Vice President, Science and Business Development	\$158,777
• Senior Vice President, Statewide Operations and Economic Development	\$150,708
• Vice President, Business and Technology Development Program	\$125,000
• Vice President, Ag/Biotech Initiative	\$121,000

c. Explanation of what benefits (healthcare, retirement, etc) are available to employees

The Biotech Center provides medical, dental, long-term disability, group term life, and accidental death and dismemberment insurance to all employees.

The Center has a formal defined contribution retirement plan. Once an employee has completed 13 months of service, the Center contributes the equivalent of 11% of the employee's annual compensation to the 401(a) plan. All regular employees are eligible to participate in the 403(b), a tax deferred supplemental retirement plan which is voluntary and contributions are the sole responsibility of the employee.

The Center grants eleven holidays per year and provides a paid vacation, health and personal business leave program.

7. Board Operations

a. Number of board members

The Biotechnology Center has 36 Board members.

b. Total expenses for board, with State funds broken out

- The budget for FY 2010 for all board related expenses was \$23,550. Actual expenses were \$20,091.
- All board member expenses are paid with state funds.

c. Frequency of Board meetings

The Board of Directors meets quarterly.

d. Per diem, travel, and other amounts paid to board members, broken out on a per member basis

Total expenses for the board, paid with state funds are as follows:

- Board members are not compensated.
- The Biotech Center does not pay per-diem amounts to board members.
- The Biotech Center does reimburse reasonable travel expenses to out-of-town board members who travel to the board meetings. Mileage is reimbursed at the IRS approved rate and reasonable hotel or meal expenses are reimbursed when supporting receipts are provided.

8. Use of State Funds

- a. Percentage and dollar amount used for administrative expenses**
- b. Percentage and dollar amount used for grant programs, broken out by program**
- c. Percentage and dollar amount used for other, non-granting programs, broken out by program**

See table on page 5 for detail.