

The North Carolina Biotechnology Center

Report to the Joint Legislative Commission on Governmental Operations and the Fiscal Research Division

Contents of report:

- Prior State fiscal year program activities, objectives, and accomplishments.
- Prior State fiscal year itemized expenses and fund sources.
- Detail schedule of awards

Required by Section 14.15.(c) of Session Law 2011-145

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Submitting entity: The North Carolina Biotechnology Center

North Carolina Biotechnology Center 2012-13 Accomplishments

The Biotechnology Center continues its support of the nation's fastest growing life science cluster. Over the last decade, North Carolina's bioscience employment has grown by 23.5 percent. This is triple the national growth rate and in contrast to the overall job loss in North Carolina's private sector.

Our 500-plus companies employ 58,000 people in North Carolina. That community creates 237,000 total jobs for the state and generates \$59.0 billion in revenues. State and local taxes paid by the industry and its ripple effects total \$1.73 billion.

NCBiotech's activities and sponsored events spur innovation, technology transfer, company creation and growth, and company recruitment. NCBiotech awarded more than \$10 million during the fiscal year to spur job creation for the state.

From idea to product

The Biotech Center primes the pipeline by strengthening university research and supporting economic development activities. Grants provide funds to pay for research equipment used by several researchers, to test new research ideas, to encourage commercialization, and to build statewide biotechnology development capacity.

These proposals are peer-reviewed by scientists outside of North Carolina. These awards by program are:

- Biotechnology Research Grants totaling \$ 495,930
- Collaborative Funding Grants totaling \$ 795,525
- Institutional Development Grants totaling \$ 1,886,020
- Multidisciplinary Research Grants totaling \$ 1,730,117
- Regional Development Grants totaling \$ 254,991

To take ideas from lab to market, the Biotech Center's Business and Technology Development Program provides a range of funding and services to spur the inception and growth of North Carolina life sciences companies. The Business Acceleration and Technology Out-Licensing Network (BATON) has supported a total of 57 companies in their startup activities. Three loan programs provide funding for company inception, technology development and corporate growth. During FY 2013, these loan program activities included:

- Technology Enhancement Grants totaling \$ 100,000
- Loans totaling \$ 2,394,698

To date, for every dollar awarded by the Biotechnology Center since inception of the company award programs, recipients have received \$117 in follow-on funding from external sources.

Connection to funding sources and technology partners is an important part of a biotech company's path to success. To develop that path, the business and technology development program led several partnering and VC efforts. Notable among those efforts were the Research Triangle Fly-In, where venture capitalists flew to RTP to preview company technology and meet with colleagues. The April 2013 Southeast Venture Philanthropy Summit drew 300 attendees, including 31 charity-based investment representatives to help companies in specific disease areas find alternative sources of funding.

Commercializing Ideas

The Centers of Innovation (COI) grant program supports the growth of nascent biotechnology-related industry sectors within North Carolina whose expansion and maturation will add new sources of revenue into the state's economy. The established COIs work to establish public-private partnerships and to align industry need with the required technological innovation that can provide an appropriate solution. These partnerships will better maximize business opportunities within their industry sector.

The program has two active Centers: ibiliti, for Advanced Medical Devices, and the Marine Biotech COI. The personalized medicine coalition remains in its investigation phase.

Agricultural Biotechnology

With \$77 billion in annual revenues, agriculture is the top sector in North Carolina's economy. By applying the tools of biotechnology to create new crops, find new uses for existing crops and improve tools for agriculture, North Carolina stands to post significant economic gain.

Continuing to implement the vision of the 30 in 10 report, the AgBiotech Group:

- Worked with a consortium of Virginia, North Carolina and South Carolina universities on projects regarding poultry feed. This is part of the work of the NC Biotechnology Crop Commercialization Center, funded by several industry groups.
- Continued to support small company growth with the AgBIOCEPS database of the state's entrepreneurial companies. Staff from the Initiative traveled to several trade shows, including BIO 2013, to promote partnerships for these companies
- Welcomed more than 300 community leaders to the AgBiotech Summit in October 2012.

State funding was supplemented by additional grants to achieve these outcomes.

Statewide Development

The preceding programs are designed to grow biotechnology companies in North Carolina from North Carolina research. The Biotech Center also works with statewide partners to bring biotechnology companies to the state, to expand existing capabilities and to capitalize on regional assets. With low business costs and specialized strengths in vaccine and pharmaceutical production, cancer research and medical research, North Carolina has a strong value proposition for companies looking to locate new facilities. The Center's recruitment team continues to work closely with the N.C. Department of Commerce on projects with new potential for job creation and investment.

Projects closed this fiscal year include:

- Piedmont Pharmaceuticals Expansion, 14 jobs, \$279,000 investment.
- NP Bioscience, estimated 5 jobs.
- Calvert expansion in NC, estimated 50 jobs, \$1M investment.
- Cathtek expansion, estimated 15 jobs, \$500K investment; this project was first announced in March 2012, closed in December.
- bioMérieux expansion, announced 44 jobs, \$48.3 Million investment.

Job Training and Workforce Development

Companies small and large need a skilled workforce to fill the jobs they create. To meet this need, NCBiotech's Education and Training Program works with the NCBioImpact partnership – including the UNC System, NC Community College System and industry. The unit continues to maintain BioWork, our introductory course for process technicians, and provided 526 student manuals to community colleges.

This effort has become a competitive advantage for the state, and is making good on biotech's promise to create jobs for North Carolinians. Recent survey data indicates that pharmaceutical and bioprocess manufacturing companies recruit 90 percent of their new hires from North Carolina.

The Center's Education and Training program works more broadly in science education by awarding grants to schools to teach the science of biotechnology, raise student interest in science careers, and prepare the state's biotechnology workforce. This year the group:

- Awarded \$ 463,046 in Education Enhancement Grants
- Awarded 11 Undergraduate Biotechnology Research Fellowships totaling \$55,000.
- Enrolled high school and middle school teachers in professional development workshops during the summer of 2012 and 2013. This was in addition to agriculture biotechnology workshops conducted during the school year.
- Provided free experiment kits, lab equipment and other lab supplies to classroom teachers.

Biotech Community

As the U.S. continues to rebuild from the recent recession, many states look to the biotech sector to add jobs. These jobs pay an average of \$78,000 in North Carolina, so they have a significant ripple effect on the economy. Battelle calculates that the total impact on North Carolina's economy is \$59 billion and more than 237,000 jobs. This generates \$1.72 billion in state and local taxes.

NCBiotech has launched several initiatives to remove some of the barriers to finding these high-paying jobs. In addition to providing guidance through meetings with and presentations to students, recent graduates, and experienced life science professionals, NCBiotech staff:

- Continued the NCBiotech Job Network, a networking group focused on mid-career biotech employees. This was in addition to the two dozen-plus scientific and regional networking groups.
- Continued the Industrial Fellowship Program, which provides transitional training for Ph.D. scientists moving from academia into industry careers. Five fellowships were awarded this year.
- The North Carolina Life Science Talent Community, in partnership with Beaker.com.

This is in addition to a variety of local and regional events that showcase the Center's and North Carolina's strengths to the world. The largest was the North Carolina pavilion at the Biotechnology Industry Organization's annual meeting. Coordinated by the Biotech Center, the pavilion included more than 50 sponsors from across the state.

The Biotech Center continues to welcome approximately 30,000 guests each year to its Hamner Conference Center. Events range from client presentations to board meetings to trade shows. Hundreds of visitors use the library's resources specific to the business of biotechnology.

Looking to the Future

In the coming year, the Biotechnology Center will continue to maximize state resources to create high-paying jobs for North Carolina.

For the most up-to-date information on the Biotech Center, please visit our Web site, www.ncbiotech.org.

North Carolina Biotechnology Center

Report of Fund Sources and Expenses

Fiscal Year Ending June 30, 2013

Fund Sources:

| | |
|--------------------------|---------------------|
| Unrestricted Revenues | |
| State Appropriation | \$17,200,676 |
| Hamner Conference Center | 270,324 |
| Other, net | 454,311 |
| Restricted Revenues | |
| Contributions | <u>883,677</u> |
| Total Revenues | <u>\$18,808,988</u> |

Expenditures:

| | |
|-----------------------------------|---------------------|
| Science & Technology Development | \$ 5,414,293 |
| Centers of Innovation | 1,531,919 |
| Statewide Development | 1,559,798 |
| Business & Technology Development | 1,507,100 |
| Education & Training | 754,694 |
| Hamner Conference Center | 827,043 |
| Library & Information Services | 771,891 |
| AgBiotech Initiatives | 233,946 |
| Other Programs | 976,938 |
| Program Management | 5,434,139 |
| General & Administrative | <u>2,738,237</u> |
| Total Expenditures | <u>\$21,749,998</u> |

Note: Figures above are on an accrual basis. The final quarterly report filed with the Department of Commerce is on a cash basis. This schedule will reconcile to our audited financial statements as of June 30, 2013.

North Carolina Biotechnology Center

Report of Awards by Program

Fiscal Year Ending June 30, 2013

| Program Area Program Category | Record Count | Amount | Percent of Total |
|--|--------------|---------------------|---------------------|
| <u>Business Financing</u> | | | |
| Company Inception Loan | 7 | \$ 350,000 | 3% |
| Small Business Research Loan | 8 | \$1,294,698 | 12% |
| Strategic Growth Loan | 3 | \$ 750,000 | 7% |
| Industrial Fellowship Program | 9 | \$ 390,800 | 4% |
| Industrial Internship Program | 8 | \$ 24,000 | < 1% |
| <i>Total Business Financing</i> | 35 | \$2,809,498 | 26% |
| <u>Education Support</u> | | | |
| Education & Training Workshop | 5 | \$ 98,238 | 1% |
| Education Enhancement Grant | 11 | \$ 463,046 | 4% |
| <i>Total Education Support</i> | 16 | \$ 561,284 | 5% |
| <u>Event Support</u> | | | |
| Biotechnology Event Sponsorships | 27 | \$ 51,381 | <1% |
| Biotechnology Meeting Grants | 11 | \$ 72,770 | 1% |
| <i>Total Event Support</i> | 38 | \$ 124,151 | 1% |
| <u>Research and Equipment Support</u> | | | |
| Biotechnology Research Grant | 5 | \$ 495,930 | 5% |
| Collaborative Funding Grant | 8 | \$ 795,525 | 7% |
| Institutional Development Grant | 14 | \$ 1,886,020 | 18% |
| Multidisciplinary Research Grant | 6 | \$ 1,730,117 | 16% |
| Technology Enhancement Grant | 2 | \$ 100,000 | 1% |
| Undergraduate Biotechnology Research Fellowship | 11 | \$ 55,000 | 1% |
| <i>Total Research and Equipment Support</i> | 46 | \$ 5,062,592 | 47% |
| <u>Sector and Region Support</u> | | | |
| Center of Innovation | 6 | \$ 1,582,105 | 15% |
| Economic Development Award | 4 | \$ 250,000 | 2% |
| Presidential Initiative Award | 2 | \$ 90,000 | 1% |
| Regional Development Grant | 4 | \$ 254,991 | 2% |
| <i>Total Sector and Region Support</i> | 16 | \$ 2,177,096 | 20% |
| Grant Totals | 151 | \$10,734,621 | 100% |