

# North Carolina Biotechnology Center

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Report to Agriculture, Natural and Economic Resources joint subcommittee  
February 24, 2015

## I. Introductory note

*In the 2013-15 budget legislation, SB 402, the General Assembly directed NCBiotech's Board of Directors to answer eight questions about the organization's programs, staffing, financing and effectiveness. The committee that completed the examination was led by former GlaxoSmithKline chairman and CEO Robert A. Ingram. Information from the committee's formal report is referenced here by the title, **Response to SB 402**. (Online at [http://www.ncleg.net/documentsites/committees/govops/Full%20Commission/2014%20Meetings/03\\_March%202014/1.%20Presentations/9.4\\_Biotech\\_Center\\_Operational\\_Report\\_Final\\_2014\\_02\\_27.pdf](http://www.ncleg.net/documentsites/committees/govops/Full%20Commission/2014%20Meetings/03_March%202014/1.%20Presentations/9.4_Biotech_Center_Operational_Report_Final_2014_02_27.pdf).)*

## II. NCBiotech programs and activities

***What are the categorical expenditures (e.g. personnel, purchased services, supplies, property, plant & equipment, aid & public assistance)?***

NCBiotech spent its FY 2014 appropriation as follows: \$7.5M on grants and loans, \$3.6M on personnel, \$1.1M on purchased services, and less than \$200K on supplies and materials, fixed charges and expenses, and capital expenditures.

***What is the count of full-time equivalent (FTE) personnel (including an organizational chart)?***

In *Response to SB 402*, the NCBiotech Board of Directors outlined the importance of specialized staff for success in technology based economic development (TBED). The review also determined that the staffing cut, from 86 positions in 2013 to 64 positions in 2014, kept the knowledge infrastructure needed to achieve significant return for the state appropriation. Our current FTEs count is 63. An organization chart is attached.

***What is the office footprint around the State, with a breakout of expenses and FTEs by location; (describe local community benefits generated by the NC Biotech Center)***

NCBiotech delivers programs to the regions through five statewide offices, listed in the chart on the next page. This model allows NCBiotech to target specific sectors of regional importance in the state's diverse landscape. Statewide offices often work on early-stage infrastructure and business development activities that pay off over time.

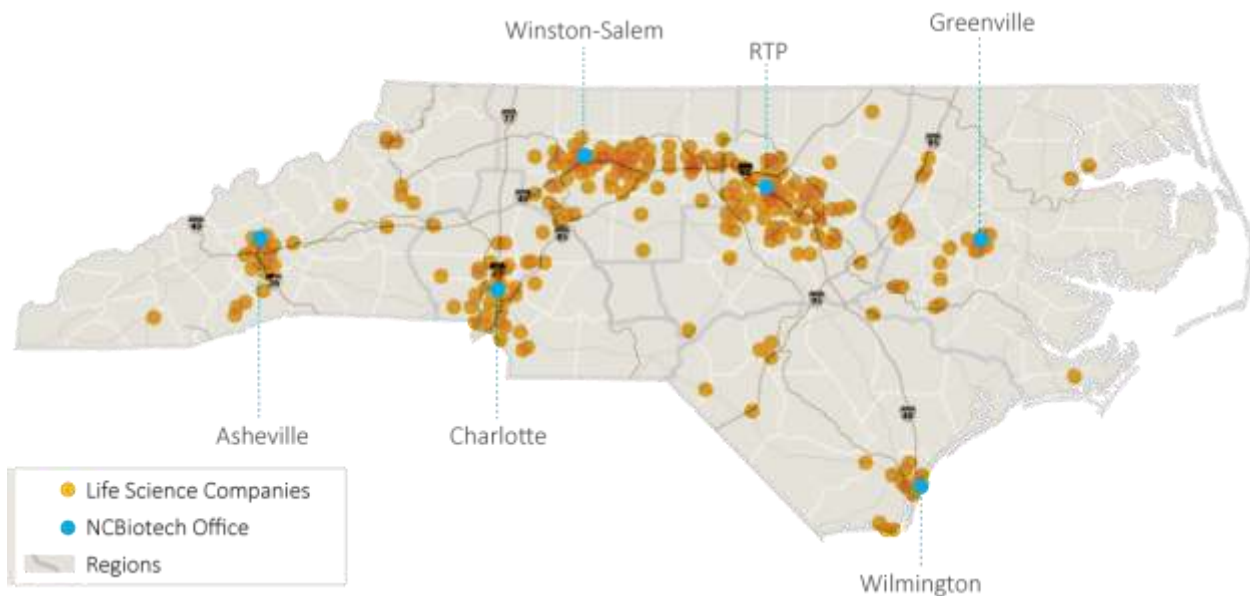
This approach leverages strong community support: leaders across the state donated an estimated 5,676 hours to NCBiotech regional office activities in FY 2013. The approximate value of those hours is \$862,000. Other community benefits from this approach include these selected news items from the last quarter of 2014. More examples are available:

- Winston Salem's Keranetics, which received two NCBiotech loans, previewed its manufacturing space in December. The company has secured \$15.2 million so far in Department of Defense funding to develop its treatments for burns and therapies for bone and nerve regeneration.

- The Marine Bio-technologies Center of Innovation, which received funding from NCBiotech, and our Southeastern Office will host the BioMarine Business Convention in Wilmington in October 2015. The international conference generates millions of dollars in deals each year. This is the first time this event will be held in the U.S.
- White Labs announced a yeast-making facility in Asheville. The facility will serve the area's growing craft brewing industry, which received event and workforce development support from our Asheville office.
- Greenville won 450 jobs in Patheon's latest expansion. The Canadian company includes Banner Life Sciences' High Point location and former DSM's Greenville production facilities. NCBiotech helped recruit Patheon's U.S. headquarters to RTP.

The following map of North Carolina shows the distribution of 600-plus life science companies across the state. NCBiotech's six offices are labeled.

#### North Carolina's 600-Plus Life Science Companies and NCBiotech Offices



#### 2015 Budgeted State Funds

Office (City)	Expenses	FTEs
Research Triangle Park Headquarters	* \$12,554,669	55.5
East (Greenville)	\$243,836	1.5
Greater Charlotte	\$210,743	2
Piedmont Triad (Winston-Salem)	\$231,356	2
Southeast (Wilmington)	\$188,714	1
West (Asheville)	\$171,020	1

\* All grants and loans are reflected in the RTP office, though awards are statewide.

*Describe fundraising efforts and associated revenue generated.*

External funds budgeted by NCBiotech for FY2015 are \$1.4M for programs and \$302,500 for conference center revenues. The bulk of funds raised are sponsorship dollars used to support specific activities requested by the state's life science industry. A partial listing of these activities include ag biotech professional forums; federal agency funding seminars for small companies; and economic development trade shows. In these cases, an investment of NCBiotech staff time leverages significant private dollars.

*Provide an overview of customers and stakeholders, including partnerships (e.g. universities, venture capitalists, private equity firms and associated return on investment)*

In the life sciences, regulations and a long time to market add risk and cost to product development. NCBiotech works to fill gaps along that pipeline, from idea to company formation to job creation. Customers, or clients, stakeholders and partners vary through the pipeline:

- For developing ideas, public and private university researchers and research offices.
- For translating research to companies, public and private university technology transfer offices and staff.
- For company formation, company founding scientists and executives, CED, and a vast support network of lab space brokers, service providers, IP attorneys and others.
- For funding companies, angel networks, venture capital firms, banks, venture philanthropy organizations, and others who can provide capital.
- For company location and growth, large companies, site selectors, the Economic Development Partnership of North Carolina, N.C. Department of Commerce and local developers.
- For workforce development, the University of North Carolina System and North Carolina Community Colleges, particularly NCBioNetwork.
- For sector development, federal, state and local government agencies, universities, non-government organizations, and companies.
- For international visibility, the Biotechnology Industry Organization, international governments, U.S. Department of Commerce, and other federal and state agencies.

Much of technology based economic development happens at an earlier stage than traditional economic development. On life science recruitment and expansion projects, NCBiotech works closely with the Economic Development Partnership of North Carolina and the N.C. Department of Commerce. Both look to NCBiotech to lead life science recruitment efforts.

### **III. Outcomes**

*What are the value-added outcomes that the NC Biotech Center provides for the State and why should funding continue?*

The life science industry is in a rapid-growth phase. However, it is an industry that is challenged by regulations, risk, high-funding needs and a long time to market. As outlined in *Response to SB 402*, NCBiotech's programs are designed to bridge gaps in the pipeline and to mitigate risk.

NCBiotech's ability to deploy the right support at the right time gives North Carolina's companies a much sought-after advantage. The dollars are positioned to leverage significantly greater funding. NCBiotech's innovation grants, early in the commercialization process, attract \$28 for each \$1 granted. Loan portfolio companies bring in \$118 in additional investment for each \$1 loaned.

In fact, company executives consistently cite our support as critical to their success. Several examples are at <http://www.ncbiotech.org/business-commercialization/success-stories/all>.

North Carolina has a strong life science industry as a result of this attention. The independent Battelle Institute's 2015 report on the sector measured the industry at 600-plus companies with 61,000 employees. The industry and its impacts generate \$73 billion for the state's economy, 228,000 total jobs, and \$1.7 billion in state and local revenues.

Also according to Battelle, the Center's 95 active loan portfolio companies generate \$2.9 billion in economic activity for the state. The 36 recruitment projects worked on by NCBiotech since 2006 produce \$3.2 billion in economic activity. These two programs represent a combined \$122.9 million in state and local revenues.

Battelle analyzed federal Bureau of Labor Statistics data analyzed and found that life science jobs grew 30.9 percent from 2000 to 2012 in North Carolina. This is four times the national growth rate, and higher than the state's private sector growth in that same time period. In fact, life science contributed half of North Carolina's net new jobs during this time.

In their report, Battelle states:

*"NCBiotech has a strong record of accomplishment in catalyzing life science industry growth in the state and it is well positioned to do so in the future. The Center's broad range of initiatives leads to significant functional benefits and economic impacts for the State of North Carolina."*

#### **IV. Long-term investment**

*The General Assembly created the NC Biotech Center in the 1980s to spur a nascent industry; the Research Triangle Park is now well established and known. Is funding for the NC Biotech Center still necessary?*

Ongoing funding is critical for the future development of the life science industry in North Carolina. This sector is rapidly spreading statewide through the efforts of our statewide offices. This is seen in manufacturing facilities in Wilson, breweries and support companies in Asheville, and defense companies from Winston-Salem to Charlotte. Grant and loan programs are run from the RTP office, but the impact of life science reaches well beyond. (See more examples above and at [ncbiotech.org](http://ncbiotech.org).)

When established in the 1980s, NCBiotech worked to shore up the state's scientific foundation to catalyze the ideas that would power this new sector. NCBiotech's role has evolved; we now bridge gaps along the pipeline from idea to market. We act as a hub and organize industry resources, and we deploy funding where it can best leverage additional investment.

Finally, competition from other states and nations is high. North Carolina has a strong reputation and has posted a job growth rate four times the national average since 2000. But other states are outcompeting us with larger incentives, worker training and even their own biotechnology centers. NCBiotech is a differentiator; we provide a unique and recognized advantage in these projects. North Carolina is at risk of losing its leadership and competitive advantage in this field if we as a state do not continue to invest.

## V. Funding

*FY 2014-15 funding for the NC Biotech Center totaled \$13.6 million, \$5 million of which was nonrecurring. What programs/personnel will be eliminated if additional nonrecurring funds are not found and the appropriation is reduced to \$8.6 million? Further, if additional reductions are taken to the recurring \$8.6 million, what other programs/personnel would be prioritized for elimination?*

In FY 2013, NCBiotech's appropriation was \$19.5 million, with a \$2.3 million reversion. From \$17.2 million, the state appropriation was cut to \$12.6 million in FY 2014. As part of that appropriation, the General Assembly directed the NCBiotech Board of Directors to conduct a study of the organization's operations, finances and staffing. The board asked former GlaxoSmithKline Chairman and CEO Robert A. Ingram to lead the study committee.

The report affirmed the program cuts and 26 percent staffing reduction made following the 27 percent cut in state appropriation. The *Response to SB 402* further stated that further cuts would severely hamper the state's ability to maintain and grow its life science industry, and North Carolina's competitive advantage in recruiting new companies would be at risk.

Rather than additional cuts, the *Response to SB 402* stated that the NCBiotech infrastructure was capable of effectively and efficiently awarding more dollars to increase industry growth, and it must be leveraged to do more for North Carolina. The Board adopted the Ingram committee proposal and recommended an increase in state funding for these initiatives:

- Initiate a new academic grant program to spur university-company collaborations
- Initiate a new loan program focused on a larger \$500,000 loan to drive additional job growth by playing a larger role in bridging companies across the early-stage funding gap
- Enhance the existing Economic Development Award program to strengthen job recruitment
- Leverage ag biotech strengths to stake North Carolina's leadership in the sector
- Allocate additional funds for grants to new Centers of Innovation to drive sector growth

The Board recommends additional funding for these initiatives to keep North Carolina competitive with other states. For example, Massachusetts, Texas, New York City and others have created investment funds with hundreds of millions of dollars using a combination of public and private dollars. These funds invest \$10 million or more in promising life science companies.