



# North Carolina

## *The Complete Package for Biotechnology*



NORTH CAROLINA BIOTECHNOLOGY CENTER



# US Biotechnology Industry





# The Complete Package



PharmaAgra

Nowhere else in the world  
except North Carolina will you  
find such a vibrant bioscience  
community built on:

– Superior Science



# Superior Science



North Carolina Research Campus/Kannapolis

- World-class research institutions
- 5 medical & veterinary schools
- > \$1.5 billion in research annually at North Carolina universities



# Superior Science



- Federal/private research labs: EPA, NIEHS, RTI, The Hamner Institutes
- Strong history of academic-industrial collaboration



# The Complete Package



GnBios/Talecris Biotherapeutics, Inc.

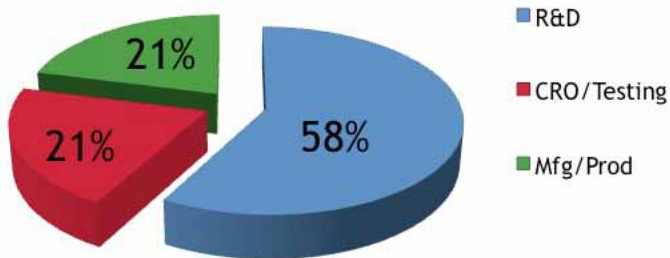
Nowhere else in the world except North Carolina will you find such a vibrant bioscience community built on:

- Superior Science
- Thriving Industry



# Thriving Industry

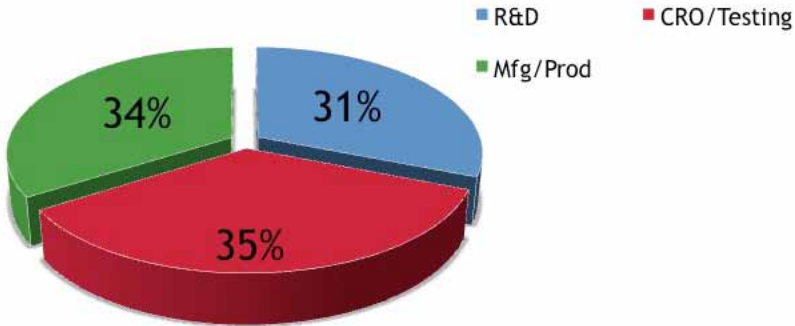
**More than 530 Companies**





# Thriving Industry

**59,000+ Employees**







# Thriving Industry



GRIFOLS



tranzyme<sup>®</sup>  
pharma

Q QUINTILES<sup>®</sup>



biogen idec

syngenta



PPD<sup>®</sup>





# The Complete Package



NC A&T University

Nowhere else in the world except North Carolina will you find such a vibrant bioscience community built on:

- Superior Science
- Thriving Industry
- World-class Workforce



# World-class Workforce



NC Biotechnology Center/Tom Fudham



**NCBIOIMPACT**

Industry-Driven Training and Education

full-spectrum approach to  
biomanufacturing workforce training

- **BIONetwork**— network connecting community colleges across state offering biotech training programs led by six topic-specific training centers



# World-class Workforce



BRIT/NC Central University



full-spectrum approach to  
biomanufacturing workforce training

- **BRITE**  
Biomanufacturing  
Research Institute &  
Technology Enterprise



# World-class Workforce



BTEC/NC State University



**NCBIOIMPACT**

Industry-Driven Training and Education

full-spectrum approach to  
biomanufacturing workforce training

- **BTEC**—Golden LEAF  
Biomanufacturing  
Training and  
Education Center



# World-class Workforce

- 16 campus state university system
- 36 private colleges and universities





# Institutions of Learning





# World-class Workforce

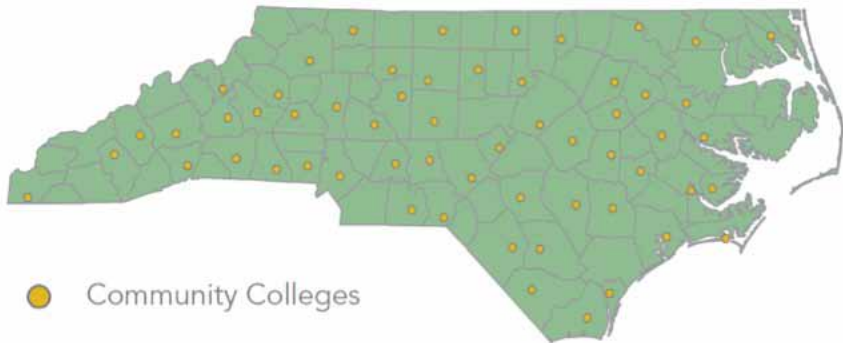
- 59 campus community college system
- Unrivalled workforce education and training capability







# Institutions of Learning





# The Complete Package



NC Dept. of Commerce/ Asheville

Nowhere else in the world except North Carolina will you find such a vibrant bioscience community built on:

- Superior Science
- Thriving Industry
- World-class Workforce
- Strengths Statewide



# The Complete Package



Jamie Monsieff UNC-WM Mariboric

Nowhere else in the world except North Carolina will you find such a vibrant bioscience community built on:

- Superior Science
- Thriving Industry
- World-class Workforce
- Strengths Statewide
- Long Term Commitment to Biotechnology



# North Carolina Biotechnology Center



*We Make the Connections that  
Commercialize Life-Science Ideas*



# North Carolina Biotechnology Center



Jim Sink Photography

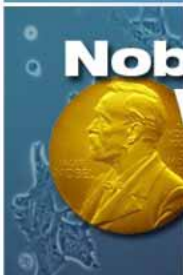
Supporting biotechnology research, business  
and education statewide since 1984

NORTH CAROLINA BIOTECHNOLOGY CENTER



## Research/Grants

- Grant funding for:
  - New research ideas
  - Build capacity—equipment and faculty
  - Regional development
- \$50M+ granted
- Networking groups



### Nobel Prize Winner

Students interested in science will be inspired by the news that Dr. Oliver Smithies, Professor of Pathology and Laboratory Medicine at the University of North Carolina at Chapel Hill School of Medicine, is a co-recipient of this year's Nobel Prize in physiology or medicine. Read more about the impact of his "designer mice" on our understanding of gene function and disease. [read more >](#)



# Business Loans and Support



NC Biotechnology Center/ Tim McKay

- Small company support
  - Inception, research and growth phases
  - Stakeholder support network (BATON)
- Low interest loans
- Events and programs





# Workforce & Education

- Develop K-12 biotechnology through:
  - Lab equipment for classrooms
  - Teacher workshops
- Grants for biotechnology education projects at all levels







# Strengths Statewide



## Statewide Offices

- Western (Asheville)
- Greater Charlotte
- Piedmont Triad (Winston-Salem)
- Research Triangle Park
- Eastern (Greenville)
- Southeastern (Wilmington)



# Centers of Innovation



Bigstock.com

Maximize business opportunities and accelerate commercialization of science and technology by identifying and aligning industry needs with ongoing research.

- University researchers
- Technology transfer offices
- Industrial partners
- Non-profit stake holders
- Regional/state-wide community leaders



# Centers of Innovation



NC Biotechnology Center / Tom Fuldham / Ortho Kinetics

Advanced Medical  
Technologies  
(Ibiliti™)



# Centers of Innovation



Drug Discovery  
(DDCOI)



# Centers of Innovation

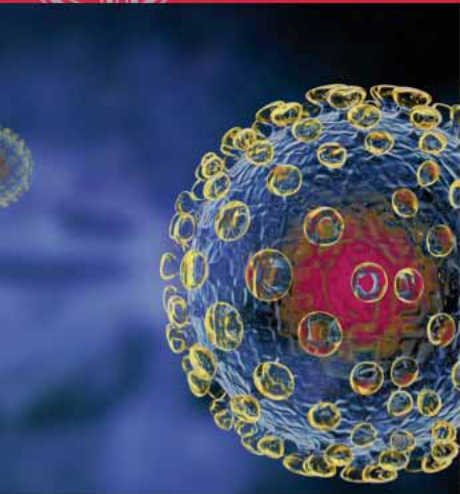


Jamie Moncrief/ UNC-Wilmington/ Maribonic

## Marine Biotechnology



# Centers of Innovation



Novartis

Nanobiotechnology  
(COiN)



# Breaking It Down





# Long Term Commitment to Biotechnology



NC State University

\$100 million invested in  
bioscience programs in 2010  
\$1 billion in the past 10 years

The North Carolina Biotechnology  
Center has invested \$200 million  
in grants, loans and other  
programs over last 25 years to  
solidify the state's biotechnology  
foundation and to leverage  
further investment.





# Grants and Loan Funding

## Science & Tech Development

- Grant Programs
- **\$1 → \$31.10 ( \$1.25 - \$78.41)**
- Educational/Networking events



# Grants and Loan Funding

## Business & Tech Development

- Grant Programs
- **\$1 → \$103**
- Technical Assistance
- Networking events



# Leveraging Resources



NC Biotechnology Center

## Partnering with

- NC agencies
- Federal agencies
- Industry
- Policy makers
- Investors
- Universities
- Community colleges
- International clusters



# North Carolina's Value

- #1 Best Business Climate
  - *Site Selection*, 9/10 past years, Nov 2010
- #2 Best State for Business
  - *Chief Executive*, CEOs, May/June 2010
- Forbes Best Places for Businesses and Careers, 2010
  - Raleigh #3
  - Charlotte #17
  - Asheville #21
  - Durham #23





# North Carolina's Value



MILKEN INSTITUTE

## 2007 Cost-of-Doing Business Index

[www.milkeninstitute.org](http://www.milkeninstitute.org)

2007 Rank	Previous Rank	State	Wage Cost Index <sup>(1)</sup>	Tax Burden Index <sup>(2)</sup>	Electricity Cost Index <sup>(3)</sup>	Industrial Rent Cost Index <sup>(4)</sup>	Office Rent Cost Index <sup>(5)</sup>	Cost of Doing Business Index
1	1	Hawaii	91.9	162.1	260.7	289.5	140.4	151.5
2	2	New York	128.5	102.5	141.5	154.4	189.4	130.9
3	3	Alaska	100.3	153.0	150.3	232.7	84.5	130.8
4	5	Massachusetts	122.1	101.0	167.8	129.0	165.2	130.6
5	4	Connecticut	128.9	106.8	163.8	113.5	116.1	127.5
6	6	California	114.8	120.6	134.7	141.4	141.4	122.9
7	7	New Jersey	121.2	94.5	129.7	161.0	117.3	120.9
8	8	Vermont	83.9	173.1	134.0	91.9	87.3	110.2
9	9	Delaware	110.5	132.1	87.8	95.3	112.3	110.1
10	14	Rhode Island	94.8	105.8	174.9	74.0	118.7	108.0
11	11	Maryland	108.9	90.4	134.1	94.7	115.4	106.4
12	12	New Hampshire	98.5	81.9	167.2	120.4	71.1	105.3
13	10	Minnesota	98.8	133.2	77.7	121.3	89.0	104.3
14	16	Nevada	96.4	102.2	115.9	114.2	134.5	104.2
15	17	Washington	104.3	105.4	74.0	116.0	136.2	102.7
16	19	Wyoming	86.1	155.8	86.0	133.6	77.4	101.6
17	28	Maine	80.4	129.1	143.1	88.9	81.7	100.3
18	15	Illinois	107.5	88.2	80.3	100.8	126.0	99.9
19	20	Florida	91.4	88.3	117.3	125.0	116.5	99.3
20	13	Michigan	99.5	106.7	95.9	87.9	92.7	98.9
21	18	Pennsylvania	96.5	97.9	102.2	86.9	105.8	97.2
22	22	New Mexico	82.5	135.5	92.4	102.1	83.5	95.6
23	23	Wisconsin	98.2	110.0	93.9	120.6	102.7	96.4
24	26	Texas	100.1	89.9	118.1	95.7	91.0	95.9
25	21	Virginia	104.8	88.3	72.1	97.0	102.6	95.8
26	25	Louisiana	85.7	111.8	114.5	74.0	82.7	93.9
27	29	Colorado	102.7	70.4	94.8	81.8	98.7	92.8
28	24	Arizona	94.2	92.8	83.8	75.6	115.3	91.5
29	32	Oregon	99.1	93.7	77.5	111.1	106.7	91.4
30	27	Ohio	90.8	99.0	93.4	71.2	92.6	91.0
31	31	North Carolina	88.4	111.0	81.5	77.2	90.3	90.5

METRO AREA	COST OF DOING BUSINESS (RANK) <sup>(1)</sup>
Greensboro NC	1
Asheville NC	2
Wilmington NC	3
Hickory NC	4
Shreveport LA	5
Fayetteville NC	6
Winston-Salem NC	7
Kingsport TN	8
Fort Smith AR	9
Springfield MO	10
Fayetteville AR	11
Fort Wayne IN	12
El Paso TX	13
Roanoke VA	14
San Antonio TX	15
Raleigh NC	16
Boise ID	17
Chattanooga TN	18
Knoxville TN	19
Eugene OR	20
Lincoln NE	21
Cedar Rapids IA	22
Oklahoma City OK	23
Clarksville TN	24
Mobile AL	25



# North Carolina



*It's just the beginning...*