



**Together - Making Progress,
Making History:
a Report to the Bioscience Community**

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October 21, 2008

An Ohio Thomas Edison Center

Improved In-State Bio-Business Climate

- Jobs Stimulus Package
- Third Frontier Program
- OVCA & pre-seed/seed funds
- Tax Reform
- Lawsuit Reform
- University System of Ohio
- Renewed focus on technology workforce



Ohio Ranks 4th in the Nation in Biotech Strength in the latest report



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Overall Biotechnology Strength U.S.	
1.	PENNSYLVANIA
2.	CALIFORNIA
2.	MASSACHUSETTS
4.	OHIO
4.	TEXAS
6.	ILLINOIS
7.	NEW JERSEY
8.	NEW YORK
9.	FLORIDA
10.	KANSAS
10.	MINNESOTA





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State Impacts of the Medical Technology Industry

Prepared by:
The Lewin Group, Inc.



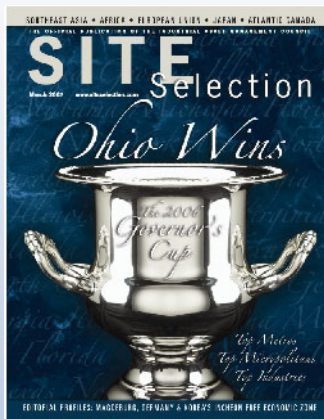
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Ohio – National Top 10 AdvaMed

Exhibit 2
Ten States with Largest MTI Employment

State	Employment	State	Employment
California	72,485	Pennsylvania	17,482
Massachusetts	21,847	New York	16,607
Florida	19,949	Indiana	15,548
Minnesota	18,571	Texas	14,253
New Jersey	17,953	Ohio	12,820

#1 State in attracting new businesses and expanding facilities



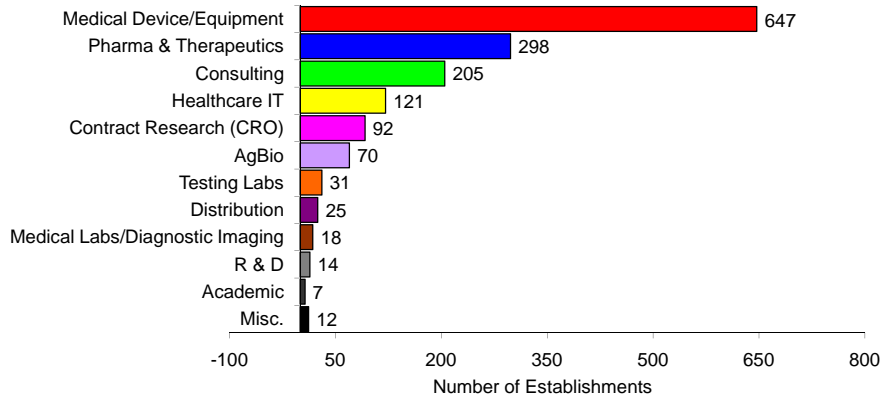
BioPharma Expansions

- **Ben Venue & Bedford Labs**, divisions of **Boehringer Ingelheim**- added 82,000 square feet and 300 jobs
- **Roxane Laboratories**, a division of **Boehringer Ingelheim**- upgraded its Columbus facility
- **Alkermes**- added 44,000 ft² to its Wilmington facility
- **Amylin Pharmaceuticals**- \$470 million for new facility
- **Pharmaforce**- new 40,000 ft² state-of-the-art plant for pharmaceutical products
- **Patheon**- expanding their Cincinnati-based Pharmaceutical Development Services
- **Eurand**- 18,000 ft² to accommodate additional in-house R & D, manufacturing, and packaging
- **Cognis**- \$20 million expansion for their North American Headquarters and production site in Cincinnati
- **Abbott Nutrition**- renovating its current 500,000 ft² facility
- **Novatex**- established their North America Headquarters and added 34,000 ft² to site in Ashland
- **Prasco Laboratories**- currently the fastest growing pharmaceutical company in terms prescriptions



1162 Ohio Bioscience Entities

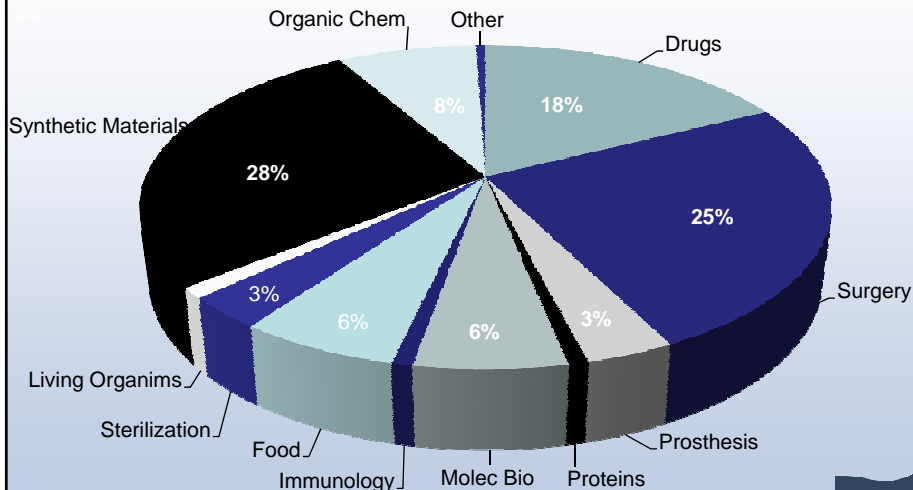
Bioscience Establishments by Category



* One company may be categorized within one more areas

Source: BioOhio database (August 13, 2008)

Ohio Bioscience Patents 2001-2007



Ohio is ranked 8th nationally in total patents issued and has more than every country in the world except for Japan, Germany, and the UK

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“The Economic Impact of Ohio’s Medical Schools and Teaching Hospitals” (2007 data)

- **Seven Medical Colleges and their Affiliates**
 - Case Western Reserve School of Medicine
 - University of Cincinnati College of Medicine
 - Northeastern Ohio Universities Colleges of Medicine and Pharmacy
 - Ohio University College of Osteopathic Medicine
 - The Ohio State University College of Medicine
 - The University of Toledo College of Medicine
 - Wright State University Boonshoft School of Medicine

Medical College Study (Continued)

- \$37.2 billion in economic impact, a \$16.5 billion increase since 2002
- Out-of-state dollars from visitors, patients, etc = \$1.7 billion in CY 2007
- 425,000 FTE's employed
- Account for 66% of the \$628 million in NIH awards
- 1 in every twelve workers in Ohio is employed directly or indirectly by a medical school or teaching hospital



- | | | |
|---|--------------------------------|-----------------------------------|
| 1. Akron ArchAngels Network | 20. Isabella Capital | 39. Southern Ohio Creates Capital |
| 2. Athenian Ventures | 21. JumpStart | 40. Summit Health Ventures |
| 3. BIOMECH | 22. Kadima Partners | 41. Sycamore Partners |
| 4. Blue Chip Venture Company | 23. Kirtland Capital | 42. Talisman Capital |
| 5. Blue Point Capital | 24. Miami Valley Ventures | 43. Teton Capital |
| 6. Bridge Fund | 25. Morgenthaler Ventures | 44. Triathlon Medical Ventures |
| 7. Case Technology Ventures | 26. Mutual Capital | |
| 8. Charter Life Sciences | 27. NCIC Capital | |
| 9. CID Equity Partners | 28. NCT Ventures | |
| 10. Cincinnati Children's Tomorrow Fund | 29. North Coast Angels | |
| 11. Cleveland Clinic Innovations | 30. Oakwood Medical | |
| 12. Core Network | 31. Ohio Tech Angels | |
| 13. Draper Triangle Ventures | 32. Primus Venture Partners | |
| 14. Early Stage Partners | 33. Queen City Angels | |
| 15. Entrepreneurs Fund | 34. Reservoir Ventures | |
| 16. First Fifty Fund | 35. River Cities Capital Funds | |
| 17. Foundation Medical Partners | 36. Riverside Capital | |
| 18. Frantz Medical Ventures | 37. RMS Investments | |
| 19. Glengary Ventures LLC | 38. Scius (Spire Capital) | |

➤ **Now 58 Ohio
Health Care
Venture Funds**



Mixed Global Environment

- Bioscience industry (all aspects) forecasted for continued growth despite economic downturn
- Big Pharma and Big Device have cash and continue to look for L&A opportunities
- Aggressive Big Pharma outsourcing inducing major changes in the landscape – more CRO's, CMO's and University development agreements
- IPO window remains closed for the foreseeable future (closed before crisis began)
- VC's biased towards re-investment in current portfolio companies, looking for later stage deals
- State budget cuts likely with drops in tax revenue
- Virtual, more cash efficient, company models rapidly emerging



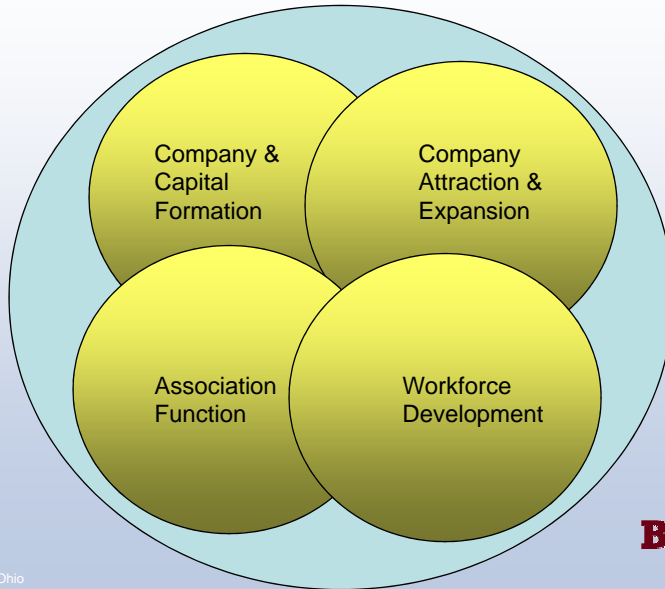
Estimate of key industry “A” metrics achieved for FY 2008

Objective	Actual
Dollars invested – VC/Angel	\$268.5 million
IPO/Acquisitions	\$964 million
SBIR/STTR	\$27 million
Third Frontier Biomedical Partnership Grants	\$135 million
Biomedical Partnership matching Dollars	\$92 million
NSF Bioscience Grants	\$12 million
Corporate Expansions	?
<u>NIH Institutional Grants</u>	<u>\$628 million</u>
TOTAL	\$2,126.5 million



BioOhio Strategy

industry growth, resource optimization, community building



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Reported state metrics significant accomplishments FY 2008

Objective	Goal	Actual
Dollars invested in BioOhio affiliated or supported companies	\$175 million	\$268.5 million
Number of companies created in Ohio	37 (75 in 2 years)	46
Number of companies attracted to Ohio	5	10
Number of jobs created	500	TBD
Increase global/national image and rankings	1 top ten ranking	2 top ten rankings






BioOhio Board

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- **Arnold W. Strauss**, MD, Director - Cincinnati Children's Research Foundation
- **John Voyzey**, V.P. & General Manager, Life Sciences, Steris Corporation


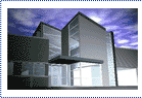



Company & Capital Formation


www.rgp.org
www.bioenterprise.com

www.techcolumbus.org






**Edison
Biotechnology
Institute**

www.ohiou.edu/biotech



www.biostart.org



Examples of the BioOhio Team at Work

- **Association** (Matt Schutte, Jen Goldsberry)
 - New Website (bioohio.com)
 - 30 new members in 2008, total 275
- **ABCAP** (John Lewis, Scott Osborne)
 - 50 partners in all corners of Ohio
 - 19 relocations to Ohio in the past 3 years
 - GCIC partnership
- **Workforce** (Bill Tacon)
 - Career Fair, 21 companies, 300+ job seekers
 - SME partnership



Ohio Bioscience Growth Report & Magazines

OHIO BIOSCIENCE GROWTH REPORT

DECEMBER 2007



Ohio Bioscience Growth Report
December 2007

future
GROWTH
vision



Accelerating Excellence 2008
The Official Publication of Bioscience in Ohio

The Business of Bio in Ohio
AtriCure's IPO among highlights in 2006

Anylin opens Ohio facility

It's happening in Columbus, Ohio. AtriCure is a leading medical device manufacturer in the world. Anylin is a leading medical device manufacturer in the world.

The Future

- Ohio as the global center for
 - Cardiovascular innovation & technology
 - Medical imaging
 - Personalized medicine
 - Biologics manufacturing
 - Medical device supply
 - Biopolymers
 - Medical informatics

