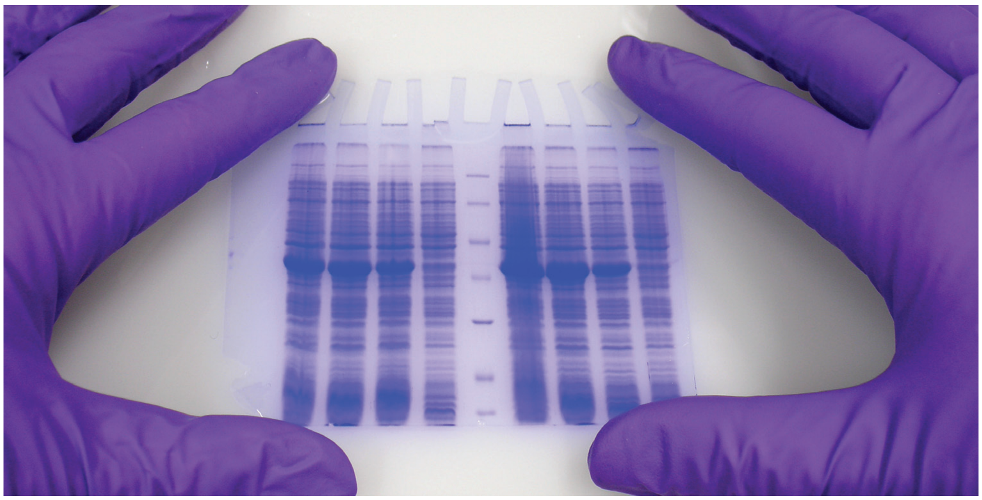
THOUGHT LEADERSHIP FROM THE BDO TECHNOLOGY AND LIFE SCIENCES INDUSTRY PRACTICE

2011 BDO BIOTECH BRIEFING

EXECUTIVE SUMMARY



U.S. BIOTECHS CUT R&D SPENDING TO STRATEGICALLY MANAGE RESOURCES

The ***2011 BDO Biotech Briefing*** examined the most recent 10-K SEC filings of the publicly traded companies listed on the NASDAQ Biotechnology Index (NBI). Companies reporting more than $300 million in revenue were excluded as outliers; the remaining 86 companies were divided into smaller (less than $50 million in revenue) and larger (greater than $50 million in revenue) classes.

The report has been cited in the following media outlets: *Boston Business Journal, CEO Roundtable, Fierce Biotech, Life Science Leader, LifeSci Trends, Mass High Tech, NJBiz, Pharmalot, PharmaMarketer, Reuters, The Big Red BioTech Blog, The Burrill Report, The Deal Pipeline, The Pharma Letter* and *Xconomy*.

The biotech industry remains strong despite ongoing market volatility and research and development (R&D) cutbacks. Thanks to strategic cost cutting and prudent spending, many U.S. biotech companies have seen impressive growth in revenues over the past year and are poised for a successful finish to 2011.

According to the ***2011 BDO Biotech Briefing***, which examined the most recent 10-K SEC filings of the publicly traded companies listed on the NASDAQ Biotechnology Index (NBI), R&D spending at U.S. biotech firms dropped 7 percent in 2010, marking the second consecutive year biotechs have cut R&D costs. This cost-cutting trend is consistent with the global drug industry, which cut R&D spending

Read more on page 2

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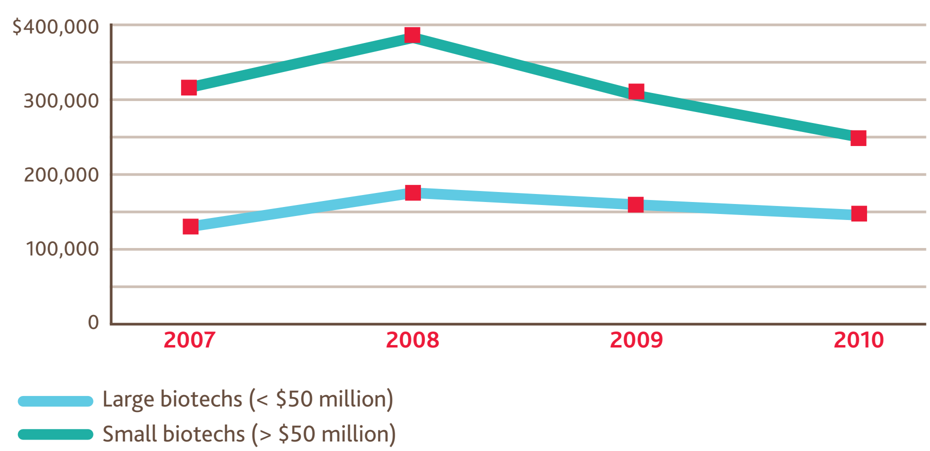
▶CONTINUED FROM PAGE 1

for the first time ever in 2010, according to Thomson Reuters. U.S. biotechs are sharpening their focus on the most promising products and initiatives and being more strategic with their cash reserves.

While R&D efforts are mission critical to corporate operations, the level of investment in R&D activity is not always a direct indicator of company performance. For those organizations that decreased R&D spending in 2010, the study found that more than half (57 percent) of biotechs averaged a 71 percent positive shareholder return, but the remaining 43 percent of companies averaged a negative return of 34 percent.

Biotech R&D Spend and Revenue Trends

Biotech R&D Spend Per Employee



▶R&D INVESTMENTS BECOME MORE FOCUSED, MIRROR GLOBAL DRUG INDUSTRY

In 2010, companies spent an average of $54 million on R&D efforts, down from $58 million in 2009. These cuts are in line with the global drug industry, which saw expenditures for discovering and developing new drugs decline nearly 3 percent from the $70 billion spent in both 2008 and 2009, according to Thomson Reuters. The decline is expected to continue through 2011.

"[Biotech companies] are cutting programs, focusing on what they believe are the best drug candidates with a higher level of probability for commercialization," Aftab Jamil, partner and national director of the Technology and Life Sciences practice told *Fierce Biotech*. A savvy strategy given that the FDA's yearly approval rating has dropped from 56 in 1996 to 23 in 2010, and that the FDA is currently pushing to raise the regulatory bar on biosimilars and interchangeability – a move that would make the process of obtaining FDA approval even more complex and expensive.

While companies continue to focus on R&D spending cuts, the trend has slowed. In 2009, biotechs reported spending, on average, $58 million in R&D expenditures – down 9 percent from $64 million in 2008. Furthermore, despite the decline in R&D investment, average revenues for all biotech companies included in the survey rose 11 percent to $77 million, compared to $69 million in 2009.

▶SMALL BIOTECHS SEE ROBUST GROWTH, DESPITE HARSHER R&D CUTS

When it comes to R&D spend per employee, smaller biotechs (companies with under $50 million in revenue) cut back more severally (21 percent) than larger organizations (companies with over $50 million in revenue), which reduced spending by 7 percent. Still, because smaller biotech companies are more focused on developing their flagship products or increasing their stock, as well as on developing new technologies, they spend significantly more on R&D per employee than larger biotechs. In 2010, smaller companies also spent a greater percentage of their revenue on R&D than larger biotechs, averaging $44 million or 108 percent of their average revenues on R&D, compared to $66 million or 54 percent of total revenue, respectively.

Despite harsher cutbacks in R&D spending, small biotech companies experienced a remarkable average revenue increase of 42 percent in 2010, while larger companies showed a 3 percent decline.

"The push for more innovation by large pharmaceutical companies has spurred more strategic partnerships with biotech companies and has helped smaller, more flexible biotechs increase their product and licensing revenues," said **Ryan Starkes, partner and leader of the Life Sciences practice.**

▶Read more on page 3

▶CONTINUED FROM PAGE 2

▶LIQUIDITY IS STABLE IN TOUGH ECONOMIC CLIMATE

Liquidity remains strong in the biotech sector. In 2010, biotech companies maintained approximately $142 million in cash and short term investments, representing only a 3 percent decline from 2009.

As Jamil discussed in an article published by *Xconomy*, this is positive news for the industry. “No matter how talented and innovative a company's research team is, or how promising the technology they are developing, all comes to naught if there is no ability to continue to fund such efforts and the company runs out of cash.” By drastically cutting R&D spending, smaller companies outpaced their larger counterparts again, showing a 6 percent improvement in liquidity compared to the 10 percent decrease experienced by larger biotechs. Still, companies in both categories showed the ability to maintain cash reserves equivalent to approximately 2.64 years of R&D spending in 2010, up slightly from 2.54 years reported in 2009.

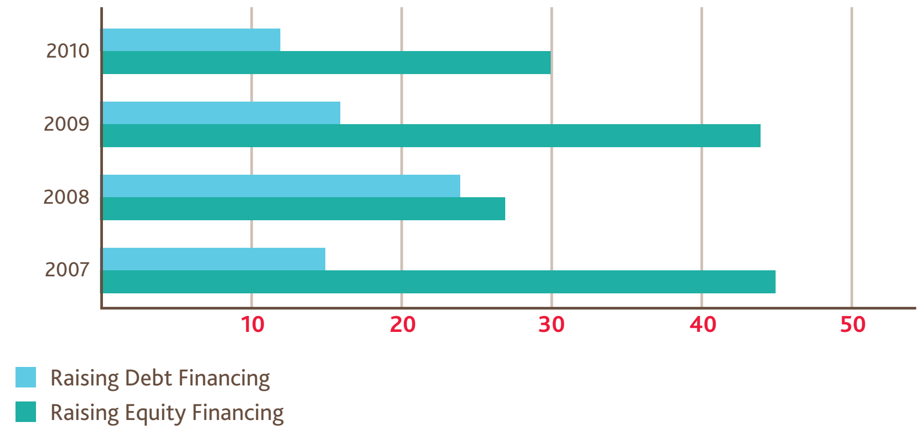
“Preserving cash is a strategic move for many biotech companies and will provide them with a competitive edge as investment opportunities present themselves,” Starkes said in *Mass High Tech*.

▶BIOTECHS CONTINUE TO RELY ON EQUITY FINANCING

To address additional cash requirements, biotechs continue to turn to equity financing as the main source of funding. The study found that in 2010, 33 percent of companies completed equity financing transactions, compared to the 13 percent of companies that raised debt financing. The trend toward relying on equity financing remains consistent – in 2009, 49 percent of biotechs raised equity financing compared to 18 percent that completed debt transactions. While 2010 saw a lower number of equity transactions, the average equity raised was steady with 2009 and pre-recessionary, 2007 levels at $64 million.

Equity funding remained accessible to smaller companies. In 2010, 51 percent of smaller biotechs completed equity transactions with an average deal size of $63 million. By contrast, just 13 percent of larger biotechs raised equity financing in 2010, an indication that companies in this category rely significantly more on cash generated from operations.

Companies Securing Equity and Debt Financing



“The best time for managers of biotech companies to deploy M&A focused on acquiring early-stage drugs and operations, is when these drugs are in disfavor, and Phase II proof-of-concept stage compounds are most desirable. Competition is lower, prices are better and more high quality deals are available. Earlier stage pipelines can also be shored up for when hungry buyers want to fill holes in their portfolios,” noted **Jim Manuso, Ph.D., chairman and CEO of SuperGen, Inc.**

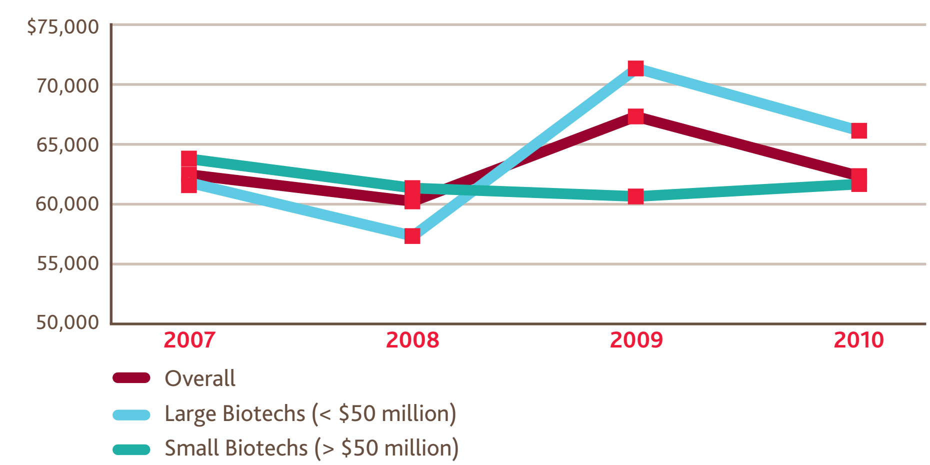
LOCAL MARKET SPOTLIGHT

Debbie Hart, president of BioNJ, notes: “Many biotech companies in New Jersey are managing the R&D process in an effort to preserve the investments made in their business, and it seems to be working. In fact, New Jersey based biotech companies have grown from 80 in 1998 to more than 330 today.”

▶Read more on page 4

▶CONTINUED FROM PAGE 3

"Despite the turbulent economy, small biotechs have shown a remarkable ability to access capital markets and raise funds. This shows that investors continue to have an appetite for investments in this sector, but have become more selective," **Aftab Jamil, partner and national director of the Technology and Life Sciences practice,** stated in *The Deal Pipeline*.



▶LOSSES DECLINE AND SHOW PROGRESS IN THE SECTOR

Biotech companies reported an average loss of $37 million in 2010, signaling a 6 percent improvement over 2009 and a considerable upgrade from 2008 ($48 million). Additionally, 73 percent of companies in the study reported losses, a number that continues to shrink year-to-year (78 percent in 2009 and 86 percent in 2008). This trend is expected to continue in 2011 as biotechs sharpen their focus and identify additional revenue streams through strategic and collaborative partnerships with large pharmaceutical companies.

"While the IPO and M&A markets continue to be challenging, the silver lining for small biotechs is the growth in corporate venture financing. Most notably, the number of venture arms from large pharmaceutical companies has grown significantly over the past three years and they are investing earlier in biotech companies' life cycles, greatly benefitting financial growth and security," said **Jerry Iwata, vice president and head of the Life Sciences Group at Wells Fargo.**

ABOUT THE TECHNOLOGY & LIFE SCIENCES PRACTICE AT BDO USA, LLP

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