Medtech slowdown

Life sciences venture capital funding lagged behind other industries, declining 10% in 4Q13 and 1% in 2013 over last year

February 2014
US venture capital funding for the life sciences sector,¹ which includes biotechnology and medical devices, declined by 1% in value and 3% in volume during 2013, according to the MoneyTree™ Report from PricewaterhouseCoopers (PwC) LLP and the National Venture Capital Association (NVCA). The report is based on data provided by Thomson Reuters. Venture capitalists invested $6.6 billion in 778 life sciences deals in 2013, compared with $6.7 billion in 800 deals in 2012.

On a quarterly basis, sector performance improved. During the fourth quarter of 2013, investment in the sector rose 19% to $1.8 billion from $1.5 billion during the third quarter. The number of life science deals rose 21%, from 188 during the third quarter to 228 during the final quarter of 2013. However, on a year-over-year basis, quarterly performance declined 10% in value with a 3% uptick in volume.

US venture funding among all industries increased 7% in value and 4% in number of deals from 2012 to 2013. Venture investors funneled $29.4 billion into 3,995 deals during 2013. For the fourth quarter of 2013, US venture investment rose 6% in dollars to $8.4 billion, and 4% in deal volume to 1,077 deals over the third quarter. Compared to the fourth quarter of 2012, deal value grew 20%, while deal volume improved 3%.

**Life sciences venture capital investment**

The life sciences share of total venture funding declined from 25% in 2012 to 23% in 2013.

The biotechnology industry raised $4.5 billion in 470 deals during 2013, placing it as the second-largest investment sector behind software, which drew $10.9 billion in 1,523 deals. Biotechnology venture investment for all of 2013 increased by 8% in value, while volume declined by 2%.

On a quarter-over-quarter basis, biotechnology investment rose 43% in dollars and 10% in deals. Biotechnology raised $1.3 billion in 134 deals during the fourth quarter of 2013, compared with $0.9 billion in 122 deals during the third quarter. In the fourth quarter of 2013, biotechnology funding declined 2% in value and 4% in volume from the fourth quarter of 2012.

The medical device industry finished 2013 down 17% in dollars and 4% in deals for the full year, capturing $2.1 billion in 308 deals. Quarterly venture funding for the medical device industry decreased by 19% to $460 million, but the number of deals increased by 42% to 94 deals during the fourth quarter of 2013. Also in the fourth quarter of 2013, medical device funding declined 27% in value but increased 15% in volume compared to the fourth quarter of 2012.

**Figure 1**: Life sciences funding compared with total venture funding

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¹ The MoneyTree life sciences sector includes the biotechnology and medical device and equipment industries. **Biotechnology** is defined as “developers of technology promoting drug development, disease treatment, and a deeper understanding of living organisms; includes human, animal, and industrial biotechnology products and services. Also included are biosensors, biotechnology equipment, and pharmaceuticals.”

**Medical devices and equipment industries** are defined as those that “manufacture and/or sell medical instruments and devices including medical diagnostic equipment (X-ray, CAT scan, MRI), medical therapeutic devices (drug delivery, surgical instruments, pacemakers, artificial organs), and other health-related products such as medical monitoring equipment, handicap aids, reading glasses, and contact lenses.”
**Life sciences funding by quarter**

Life sciences investment rose to $1.782 billion in the fourth quarter of 2013, a decrease of 10% compared to the same quarter in 2012, during which $1.975 was invested. The fourth quarter of 2011 saw $1.886 in life sciences investment.

“The fourth quarter and 2013 year-end numbers show there is continued interest in biotechnology even as medical devices slowed down during the year,” said Greg Vlahos, Life Sciences Partner at PwC. “With the strong exit markets for biotechnology this year, 2014 is set up for renewed interest in life sciences.”

**Figure 2**: Life sciences funding trends by quarter 2011–2013

**Life sciences average deal size by quarter**

The average size of a life sciences deal was $7.8 million in the fourth quarter of 2013, a decrease of 12% year over year and 2% quarter over quarter. For all of 2013, average deal size rose by 1%, from $8.4 million in 2012 to $8.5 million in 2013.

Life sciences captured one of the top 10 deals for 2013 in biotech. The deal saw $150 million invested in a Maryland biotech company involved in drug discovery.

**Figure 4**: Life sciences average deal size by quarter 2011–2013

**Life sciences deal volume by quarter**

The number of life sciences deals rose 21%, from 188 during the third quarter to 228 during the fourth quarter.

When compared with the same quarter of 2012, the number of deals increased by 3% in 2013. There were 210 deals in the fourth quarter of 2011, compared to 222 deals in 2012, and 228 deals in 2013 during the same quarter.
Funding for biotechnology and medical devices

“Biotechnology continues to be the funding driver in the life sciences segment, growing 8% in 2013,” Vlahos said. “The strong exit market for biotechnology IPOs is helping attract more funding to the segment.”

While medical devices and equipment captured $460 million in funding in the fourth quarter of 2013, biotechnology far surpassed it by capturing $1.323 billion. Biotechnology captured 74% of all life sciences investments during the fourth quarter of 2013. Similarly, for all of 2013, biotechnology accounted for 68% of life sciences investments, and medical devices captured 32%.

Biotechnology subsectors receiving less funding in the fourth quarter compared with the prior year period were:

- Biosensors, -73% to $5 million
- Biotech research, -35% to $19 million
- Biotech human, -3% to $1.13 million

Medical device funding by subsegments

For all of 2013, medical therapeutics attracted $1.5 billion, leading the three medical device subsegments. Medical therapeutics was down 23%, however, compared to business conducted in 2012.

Funding for one medical device subsegment increased, and two decreased during the fourth quarter of 2013, when compared to the same quarter in 2012.
Medtech slowdown

- Medical diagnostics, +142% to $64 million
- Medical therapeutics, -38% to $336 million
- Medical/health products, -1% to $59 million

Figure 8: Medical devices and equipment funding by subsegments 2011–2013

*Life sciences funding by stages*

For all of 2013, early-stage funding increased by 14% and late-stage funding decreased by 13%. A total of $3.4 billion went into 419 early-stage deals, and $3.3 billion went into 359 late-stage deals during 2013.

During the fourth quarter of 2013, life sciences early-stage funding increased by 4% to $1 billion when compared with the same quarter of the previous year. Quarter over quarter, early-stage funding rose by 25% in the fourth quarter of 2013, compared to the third quarter of 2013.

Early-stage deal volume decreased by 4% compared with the same quarter last year, but increased 13% over the previous quarter to 119 deals. Average deal size grew 8% year over year, and 10% quarter over quarter, to $8.6 million.

Late-stage funding declined by 23% year over year, and rose by 13% from the previous quarter to $763 million.

Late-stage deal volume recorded an 11% increase year over year, and a 31% increase from the previous quarter, to 109 deals. Average deal size decreased 31% year over year and 14% quarter over quarter, to $7 million.

Vlahos noted: “Early-stage investment drew significant interest in 2013, surpassing total funding for late-stage companies. Big Pharma is increasingly investing in companies at earlier stages to capture innovations as they move further toward an external innovation model.”

*Biotechnology funding by stages*

In 2013, early-stage biotechnology funding rose 26% to $2.7 billion, compared with $2.1 billion in 2012. Late-stage funding for biotechnology declined, from $2.1 billion in 2012, to $1.9 billion in 2013, a 10% drop.

In the biotechnology sector, early-stage funding in the fourth quarter of 2013 increased by 27% from the fourth quarter of the previous year, to $909 million in 82 deals. Late-stage funding declined sharply by 34% over the same period, to $414 million in 52 deals.
Medical device funding by stages

For the medical device industry, both early-stage and late-stage companies declined by 17% in funding in 2013. Early-stage companies brought in $703 million in 135 deals, whereas late-stage companies brought in $1.406 million in 173 deals.

In the fourth quarter of 2013, early-stage funding in the medical device industry decreased by 59% to $111 million when compared to the previous year. Late-stage funding also declined 4%, to $349 million, over the same period.

Quarter over quarter, early-stage medical device funding declined by 50% in 37 deals, whereas late-stage funding increased by 1% in 57 deals, compared with the fourth quarter of 2012.

First-time funding compared with follow-on funding

“First-time funding witnessed a strong finish to the year, gaining 48% in 2013,” Vlahos said. “The enduring interest in early-stage opportunities will continue to drive investment to the sector.”

In 2013, the life sciences sector saw first-time funding increase by 48% to $1 billion, and follow-on funding decrease by 7% to $5.6 billion.

In the fourth quarter of 2013, $409 million went into initial investments, representing a significant 105% increase from the same quarter last year. Follow-on funding decreased from 2012’s fourth quarter by 23%, to $1.3 billion.

Regional funding trends

San Francisco Bay2, Boston, Seattle, San Diego Metro, and New York Metro received the most life sciences venture capital dollars during the fourth quarter of 2013. The leader, San Francisco Bay, received $550 million in funding, with $428 million going into biotechnology, and the remaining $122 million going into medical devices. San Francisco Bay closed 54 deals during the final quarter of 2013, with an average size of $10.2 million. Boston, the runner-up, captured $356 million in biotechnology funding and $26 million in medical device funding in the final quarter of 2013.

Table 1: 2013 life sciences fourth-quarter growth factors (Y/Y growth)

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<th>% change in deal volume</th>
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<td>Follow-on</td>
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2 San Francisco Bay area includes Sf/Berkeley and San Jose.
**Venture capital outlook**

The intense pressure on life sciences companies to locate funding sources continued in 2013. The year ended with life sciences capturing 23% of total venture dollars in 19% of total venture deals—a marked decline from 2009, when life sciences captured 32% of venture dollars and 26% of venture deals. Within life sciences, biotechnology dropped from 19% of value in 2009 to 15% in 2013, and medical devices lost almost half its share over the same period, falling to 7% from 13%.

Capital proved to be impatient in 2013 as it moved to quicker ROI sectors like software. The move from capital-intensive industries like biotechnology and medical devices to capital-light industries like software gained momentum at the end of 2013 as software funding increased 27%, while life sciences fell 1% during the year. A bright spot was the exit markets for biotechnology firms, which saw numerous and successful IPO activity during the year. Although the venture funding numbers for life sciences declined in 2013, the sector was not without access to investment dollars. Some of the void has been filled by large pharmaceutical and medical device companies that are entering into partnerships with early-stage companies sooner in their development. This has precipitated a change in early-stage company behavior as new companies seek funding in exchange for access to expertise from established companies, forgoing the potential for more certainty on returns. Other sources of non-traditional funding include venture debt, private equity, sovereign wealth funds, family offices, patient groups, crowd-funding, and foreign investors.

Within the health industry, an increasingly complicated regulatory environment is a contributing factor alongside time-consuming clinical trials. Even with these headwinds, life sciences is still one of the stalwarts of venture investing. Only now venture firms have more competition for the most promising opportunities.

**Fundraising**

Overall, in 2013, venture capitalists invested $29.4 billion in 3,995 deals, an increase of 7% in value and 4% in number of deals compared to 2012.

Venture capitalists invested $8.4 billion in 1,077 deals during the fourth quarter of 2013. Quarterly venture capital investment activity increased 6% in terms of dollars and 4% in the number of deals, compared with the third quarter of 2013, when $7.9 billion was invested in 1,032 deals.

According to Mark McCaffrey, Global Technology Partner and Software Leader at PwC US, “Advances in technology continue to revolutionize how companies engage their customers on nearly every level and has changed the landscape of virtually every industry. Consumers can see how innovation is changing their lives in the Internet and software spaces, and they are eager to embrace technology at an increasing rate. Combined with the high ROI driven by the success of recent IPOs and an active acquisition market, it is no surprise that more venture capital dollars are flowing into early-stage software and Internet companies. In fact, investments in software companies accounted for more than one-third of all VC investing in 2013.”

According to Bobby Franklin, President and CEO of NVCA, “We are hearing that this optimism is being fueled by a strong exit market, an improved economy, and, as always, by innovative entrepreneurs. VC investment is also being bolstered by the continued involvement of corporations in VC deals. There has been some public discussion about recent high valuation levels in private technology companies. Private company valuations follow the public markets, and market-leading venture-backed companies are seeing strong interest from investors across the board. We are not hearing concerns about a return to the bubble values of the late 1990s.”
About PwC’s Pharmaceutical and Life Sciences Industry group

PwC’s Pharmaceutical and Life Sciences Industry group (www.pwc.com/us/pharma and www.pwc.com/us/medtech) is dedicated to delivering effective solutions to the complex strategic, operational, and financial challenges facing pharmaceutical, biotechnology, and medical device companies. We provide industry-focused assurance, tax, and advisory services to build public trust and enhance value for our clients and their stakeholders. More than 184,000 people in 157 countries across our network share their thinking, experience, and solutions to develop fresh perspectives and practical advice.

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