

## *Life sciences funding reaches record high*

*Investment in Life Sciences as well as Biotechnology was the highest since the start of the MoneyTree data series in 1995. Year-over-Year double digit growth occurred in both Biotech and Medical devices industries.*



US venture capital funding for the life sciences sector<sup>1</sup>, which includes biotechnology and medical devices, increased 21% by value, but declined 2% by volume, on a year-over-year basis during the second quarter of 2015, 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 \$3.1 billion in 201 life sciences deals in the second quarter of 2015, compared with \$2.6 billion in 205 deals during the same quarter of 2014.

Venture funding across all industries increased by 28% in terms of deal value, but remained flat in terms of volume, when compared to the same quarter of 2014. Venture investors funneled \$17.5 billion into 1,189 deals during the second quarter of 2015.

### Life sciences venture capital investment

Life sciences venture capital investments increased by 21% during the second quarter of 2015, compared with the second quarter of 2014. The life sciences share of total venture funding increased from 16% during the first quarter of 2015 to 18% during the second quarter of 2015.

Biotechnology raised \$2.3 billion in 126 deals during the second quarter, an increase of 21% in deal value, but a decline of 2% in deal volume, compared with the second quarter of 2014.

VC investments in biotechnology benefited from a few large biotechnology deals: Denali Therapeutics Inc. (\$217 million), Aduro BioTech Inc (\$200 million) and Adaptive Biotechnologies (\$195.1 million).

The medical device industry also increased by 22% in terms of dollars, but deal volume decreased by 3% for

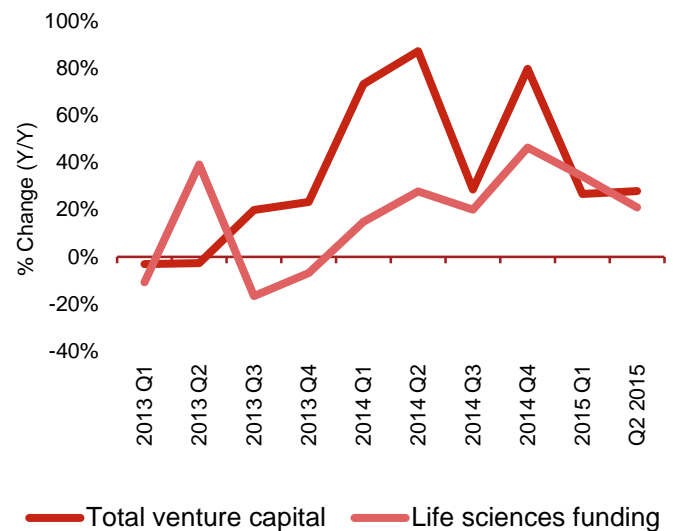
<sup>1</sup>The MoneyTree life sciences sector includes the biotechnology and medical device and equipment industries. *Biotechnology* is defined as “developers of technology promoting drug development, disease treatment, and a deeper understanding of living organisms; includes human, animal, and industrial 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.”

the first quarter of 2015, capturing \$814 million in 75 deals, compared with the same quarter last year.

“In the second quarter early stage investments grew significantly year-over-year for both biotechnology and medical devices,” said Greg Vlahos, Life Sciences Partner at PwC, “It’s another sign of confidence in the sector.”

Figure 1: Life sciences funding compared with total venture funding 2013–Q2 2015



### Life sciences funding by quarter

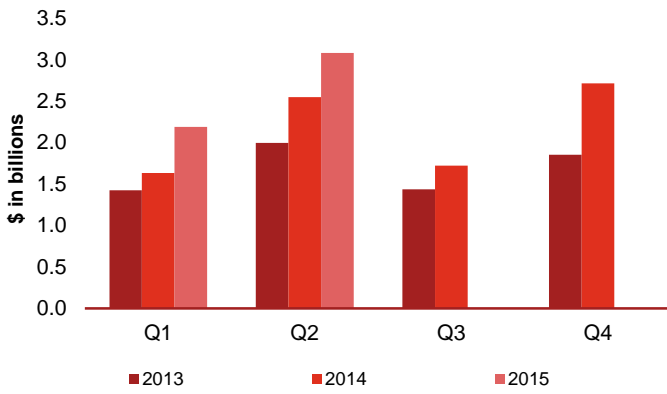
Life sciences investment jumped to \$3.1 billion in the second quarter of 2015, an increase of 21% compared with the second quarter of 2014, during which \$2.6 billion was invested.

On a year-over-year basis, biotechnology and medical device investments increased by 21% and 22%, respectively, in dollar terms.

On a quarter-over-quarter basis, funding jumped by 32% for biotechnology and a whopping 71% for medical devices.

“The potential for positive payoffs is being reflected in the valuations VCs are assigning to start-ups,” said Vlahos. “We had three biotech companies this quarter that raised \$600 million total, so we’re seeing more dollars go into biotech. But the number of companies that are being funded is trending towards historical norms, which means we’re seeing bigger rounds of financing at higher valuations.”

Figure 2: Life sciences funding trends by quarter 2013–Q2 2015



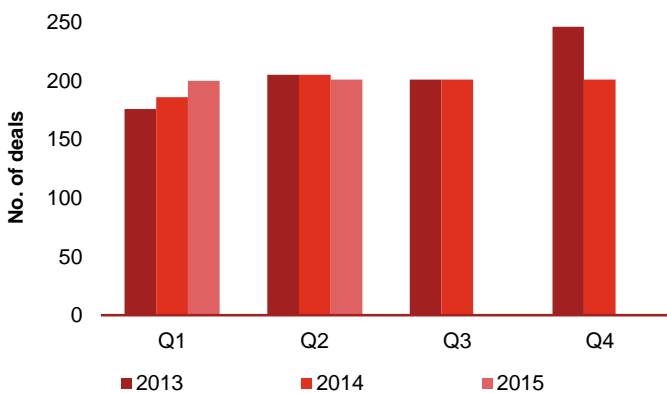
*Life sciences deal volume by quarter*

For the second quarter of 2015, a total of 201 life sciences deals occurred, representing a decrease of 2% year over year, but deal volume increased by 0.5% quarter over quarter.

The biotechnology industry logged 126 deals in the second quarter of 2015, down from 128 during the second quarter of 2014 and 128 during the first quarter of 2015.

The medical device industry completed 75 deals during the second quarter of 2015, compared with 77 during the second quarter of 2014 and 72 during the first quarter of 2015.

Figure 3: Life sciences deal volume by quarter 2013–Q2 2015

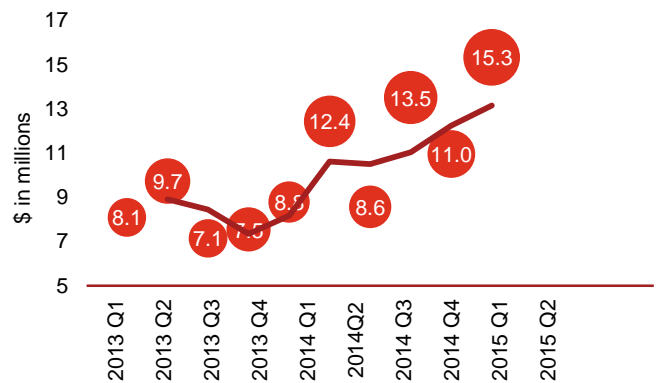


*Life sciences average deal size by quarter*

The average deal size for life sciences was \$15.3 million for the second quarter of 2015. “This is the highest average deal size since the start of the MoneyTree data series in 1995, and an increase of 23% year over year and 40% quarter over quarter in deal size”, said Vlahos.

The biotech industry captured three of the top 10 deals of the second quarter of 2015. These deals together accounted for \$612 million.

Figure 4: Life sciences average deal size by quarter 2013–Q2 2015



*Funding for biotechnology and medical devices*

Biotechnology captured 74% of all life sciences investments during the second quarter of 2015. This share ranks equivalent to the second quarter of 2014 and the first quarter of 2015.

Share for the medical devices and equipment was 26% for the second quarter of 2015, which remained flat compared to the same quarter last year and increased from 22% in the first quarter of 2015.

According to Vlahos, confidence in the medical device sector is increasing. “We’ve seen a strong medical device IPO market over the past few quarters in addition to an increase in VC investing. We expect that VC investing in medical device companies will at least match the dollars invested in 2014, if not exceed it.”

Figure 5: Life sciences investment split for the second quarter of 2015

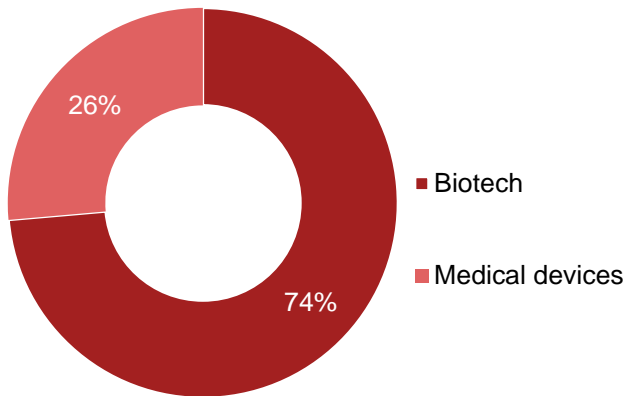
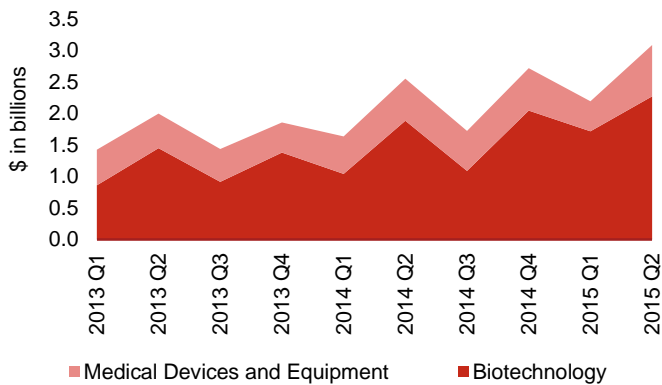


Figure 6: Biotechnology and medical devices funding trends 2013–Q2 2015



### Biotechnology funding by subsegments

For the second quarter of 2015, the biotech-human subsegment led the life sciences venture capital funding with \$1.97 billion. Biotech-human subsegment funding increased 34% compared with the second quarter of 2014 and 44% from the first quarter of 2015.

When compared with the second quarter of 2014, four subsegments rose during the second quarter of 2015:

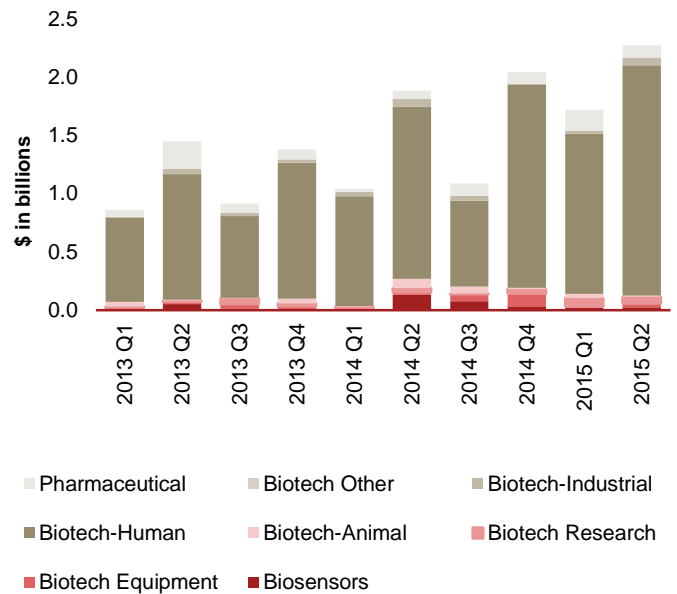
- Biotech Equipment, +67% to \$34 million
- Biotech Research, +57% to \$58 million
- Pharmaceutical, +46% to \$102 million

- Biotech Human, +34% to \$1,976 million

Biotechnology subsegments receiving less funding in the second quarter of 2015 compared with the same period in 2014 were:

- Biotech Animal, -88% to \$10 million
- Biosensors, -82% to \$24 million
- Biotech Industrial, -1% to \$67 million

Figure 7: Biotechnology funding by subsegments 2013–Q2 2015



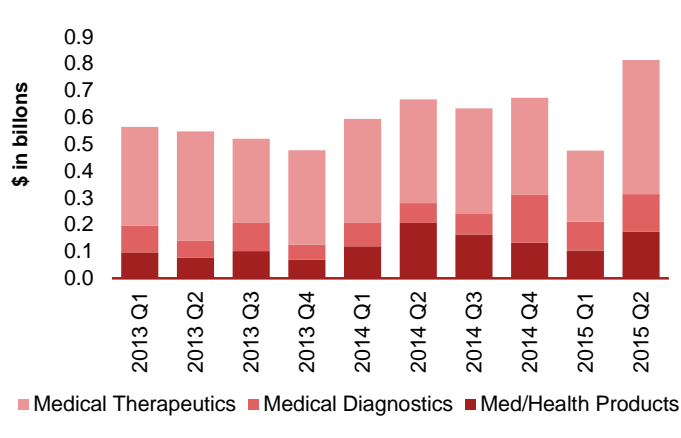
### Medical device funding by subsegments

The medical therapeutics subsegment, with a funding of \$500 million, attracted the most funding in the medical device industry during the second quarter of 2015. This amount represented an increase of 29% from the same period last year and 89% from the first quarter of 2015.

Funding for two medical device subsegments increased, and funding for one decreased during the second quarter of 2015, when compared with the same quarter of 2014:

- Medical Diagnostics, +88% to \$140 million
- Medical Therapeutics, +29% to \$500 million
- Medical/Health products, -16% to \$174 million

Figure 8: Medical devices and equipment funding by subsegments 2013–Q2 2015



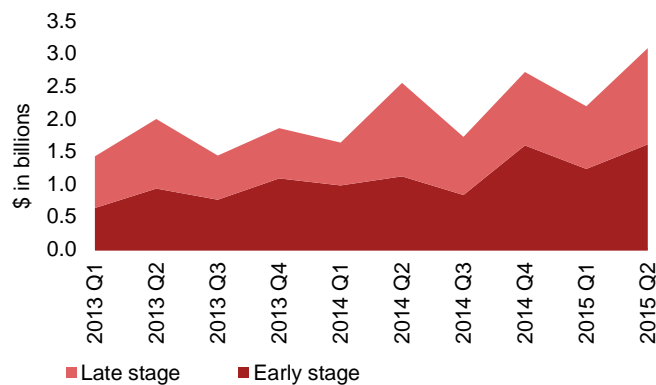
**Life sciences funding by stages**

For the second quarter of 2015, early stage life sciences funding, at \$1.6 billion in 114 deals, represents an increase of 44% year over year and 31% quarter over quarter.

Late stage investments for the second quarter of 2015 was at \$1.5 billion in 87 deals. Investments rose by 3% year over year and 54% quarter-over-quarter.

According to Vlahos, after years of shying away, VCs are regaining an appetite for early stage research. “During the quarter, about \$1.5 billion of VC cash went into early-stage companies, and \$733 million of that went to start-ups receiving venture money for the first time. In the biotech space, that’s an all-time high.”

Figure 9: Life sciences funding by stages 2013–Q2 2015



**Biotechnology funding by stages**

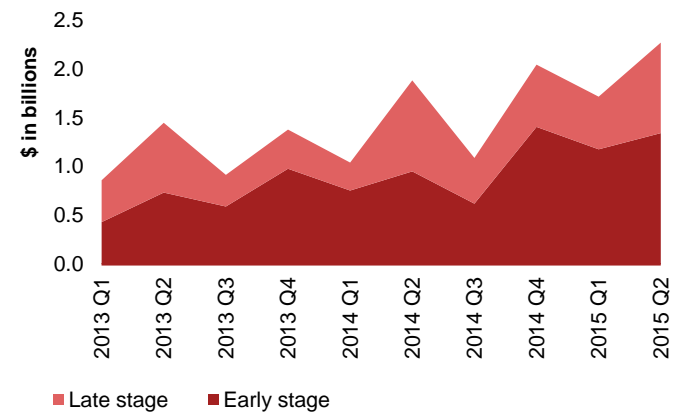
Early-stage biotechnology funding in the second quarter of 2015 rose 41% to \$1.3 billion across 81 deals, compared with \$951 million in 80 deals for the same period of 2014.

Late-stage funding for biotechnology in the second quarter of 2015 declined by 1% to \$928 million in 45 deals, down from \$933 million across 48 deals in the second quarter of 2014.

On a quarter-over-quarter basis, biotechnology funding increased for both stages—early-stage funding rose by 14% and late-stage by 72%.

Average deal size was lower for early-stage biotech transactions at \$16.6 million, compared with \$20.6 million for late-stage deals during the second quarter of 2015.

Figure 10: Biotechnology funding by stages 2013–Q2 2015



**Medical device funding by stages**

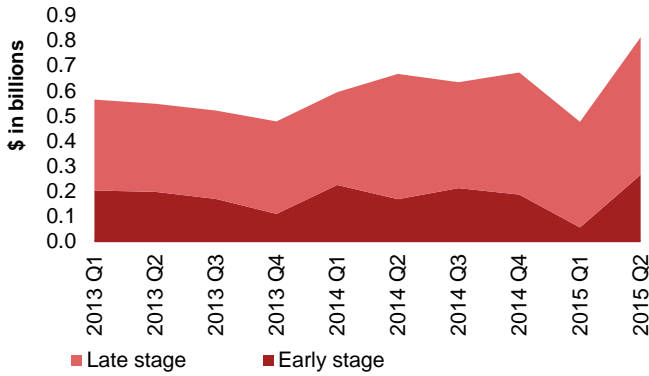
During the second quarter of 2015, medical device funding for early as well as late stage increased by an incredible 390%, representing a 30% quarter-over-quarter increase.

Early stage medical device funding increased 59% to \$264 million in 33 deals, compared with \$167 million in 24 deals for the same period of 2014.

Late stage funding for medical devices increased by 10% to \$549 million in 42 deals during the second quarter of 2015, up from \$500 million across 53 deals during the second quarter of 2014.

Average deal size for late stage medical device transactions in the second quarter of 2015 was at \$13.1 million, compared to \$8 million for early stage deals.

Figure 11: Medical device funding by stages 2013–Q2 2015



**First-time funding compared with follow-on funding**

Compared with the same quarter a year ago, first-time funding for the life sciences sector rose 245% to \$858 million, and the number of deals rose 26% to 44 in the second quarter of 2015.

Quarter-over-quarter, the life sciences sector also experienced an increase of 108% in first-time funding dollars and was flat in terms of deal volume.

For the second quarter of 2015, the life sciences sector received follow-on funding of \$2.2 billion, a decline of 3% compared with the second quarter of 2014 and an increase of 25% compared with the first quarter of 2015.

Number of deals in follow-on funding for the second quarter of 2015 was 157, a decrease of 8% compared with the same quarter the previous year and an increase of 1% compared with the first quarter of 2015.

Figure 12: Life sciences follow-on compared with initial investments 2013–Q2 2015

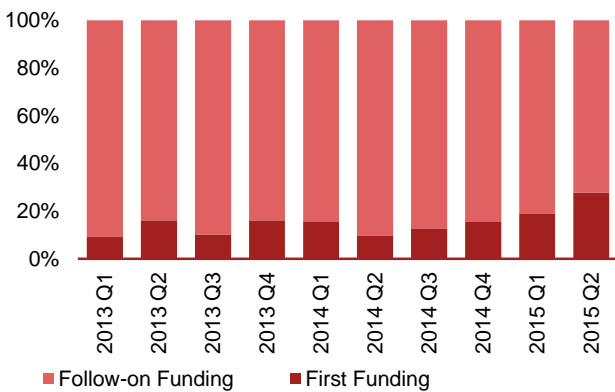


Table 1: Life sciences investments 2015 second-quarter growth factors (Y/Y growth)

	% Change in deal volume	% Change in avg. deal size	% Change in investments
First-time	+26%	+174%	+245%
Follow-on	-8%	+5%	-3%

**Regional funding trends**

The San Francisco Bay area, Boston, San Diego Metro, New York Metro and Philadelphia received the most life sciences venture capital dollars during the second quarter of 2015.

The leader, San Francisco Bay area, received \$1.3 billion, with \$926 million going to biotechnology and the remaining \$377 million going to medical devices.

The San Francisco Bay area closed 50 deals during the second quarter of 2015, with an average size of \$26.1 million.

Figure 13: Top five metropolitan regions, second quarter 2015

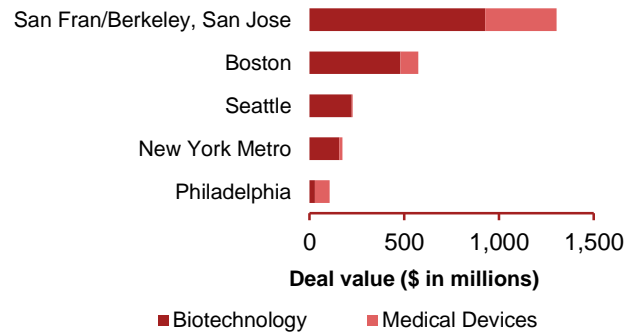
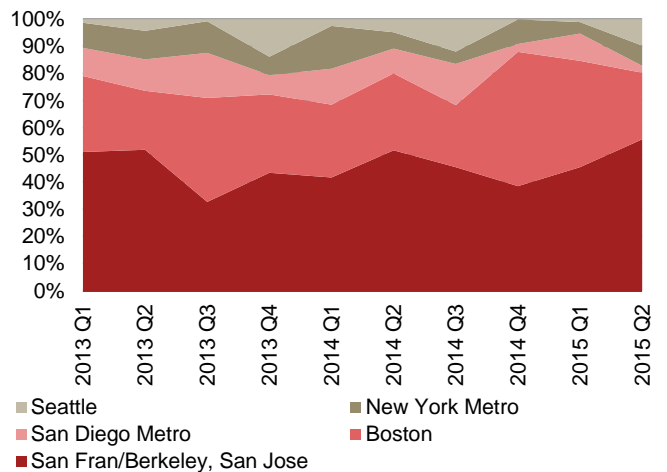


Figure 14: Life sciences funding trends in top five regions, 2013–Q2 2015



## Venture capital outlook

In the second quarter of 2015, venture capitalists invested \$17.5 billion in 1,189 deals, an increase of 28% in deal value and 0.4% in volume over the same quarter the prior year. The second quarter of 2015 clocked in the most second-quarter funding since the inception of the MoneyTree Report in 1995.

The rise in activity can be contributed to changes in the investor eco-system. Companies now have access to an entirely different set of investors, such as PE firms turned venture capitalists, providing access to billion dollar rounds that didn't exist prior to the first quarter of 2014.

This played out in the second quarter across life sciences where venture activity amounted to \$3.1 billion across 201 deals. The biotechnology industry captured the third largest total for dollars invested but was second in terms of number of deals with \$2.3 billion. This amount is the largest quarterly investment total going into biotechnology companies since the inception of the MoneyTree Report in 1995.

According to Tom Ciccolella, US Venture Capital Leader at PwC, Q2 saw a significant uptick in total investing, including substantial sums going to technology where the \$7.3 billion invested in software companies exceeded the total VC dollars invested across all industries in 51 of the last 82 quarters... "We saw 26 megadeals (deals \$100m or greater) in Q2, including yet another billion dollar investment. After seeing the very first billion dollar VC investment in Q1 of last year, we now count four of the last five quarters with companies receiving billion dollar investments, adding to the ever-growing herd of unicorns which is approaching triple digits." Given the current pace of investing, Ciccolella considers VC in 2015 to be on track to well exceed the \$50 billion invested in all of 2014.

According to Bobby Franklin, President and CEO of NVCA, a strengthening fundraising environment, is driving the venture ecosystem where more capital was deployed to the innovation economy in the second quarter than any period in the last fifteen years. "While this uptick can be partly attributed to non-traditional investors joining funding rounds, venture continues to lead the way in deploying capital to the most promising new technologies and companies.

According to Franklin, the sector increased 30 percent from the first quarter to \$7.3 billion, as software companies continue to disrupt entrenched industries and in some cases create new industries all together. Venture investment in Q2 marked the highest total investment into software companies since the inception of the MoneyTree Report in 1995. "As valuations increase and more and more companies choose to stay private longer, we are likely to see software's share of total venture investment continue to rise," said Franklin.

During the second quarter of 2015, there were 27 venture-backed IPOs valued at \$3.4 billion. By number of deals, year over year volume decreased 7% and registered a 32% decrease, by dollars, compared to the second quarter of 2014. Quarter over quarter, both number of deals increased by 59% and dollar investment by 138%.

Led by the biotechnology sector, 19 of the 27 offerings during the quarter were life sciences IPOs representing 70% of total listings in the second quarter of 2015. In addition, a total of 70 venture-backed M&A deals were reported, with the life sciences sector closing 7 deals with a disclosed value amount of \$1.4 billion.

Venture-backed IPO activity stalled in the first quarter following fast-paced activity in the previous year, but picked up steam in the second quarter, delivering 27 high-growth companies to the public markets. "As has been the case over the last several quarters, life sciences companies continue to lead the way, representing 70% of total public offerings for the quarter with biotech companies alone accounting for 14 of the quarter's venture-backed IPOs," said Franklin. "On the heels of FitBit's successful IPO, we will be watching to see if there is increased parity between the number of life sciences companies and technology companies making public offerings as the year progresses."

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## ***About PwC's Pharmaceuticals and Life Sciences Industry Group***

PwC's Pharmaceuticals and Life Sciences Industry Group 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 195,000 people in 157 countries across the PwC global network of firms share their thinking, experience, and solutions to develop fresh perspectives and practical advice.

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