

2016



Key Metrics for Technology and Life Sciences Initial Public Offerings

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Fenwick
FENWICK & WEST LLP

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Survey Introduction and Background

This report has been developed as a resource for our clients and friends interested in understanding recent IPO activity of technology and life sciences companies. This information comprises a number of graphs and charts reflecting selected statistics that we believe provide useful information about activity in these markets. This is followed by the listing of technology and life sciences IPOs priced in 2016. We hope that you find this useful. Please contact Daniel J. Winnike at dwinnike@fenwick.com or Jeffrey R. Vetter at jvetter@fenwick.com if you care to discuss this information or, as always, contact members of your client service team for more information.

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Survey Results

IPO Market begins to Show signs of life

After a slow start in the first half of 2016, the market for technology and life sciences IPOs improved somewhat in the second half of 2016. While 2016 was not at the same level as the past three years, it did top 2012, with 51 IPOs in 2016 compared to 49 in 2012.

The gap between technology and life sciences IPOs closed during the second half of 2016, with 17 life sciences IPOs and 14 in the technology sector, representing a year-over-year decrease in life sciences activity in the second half and a slight uptick in activity in the technology sector. For comparison, in the second half of 2015, there were 26 life sciences IPOs and 13 technology IPOs.

Transaction sizes for technology IPOs were lower than in other recent periods, with over half of the deals being under \$100 million. The life sciences saw a similar dynamic, with 30% of the IPOs under \$25 million and 75% under \$100 million.

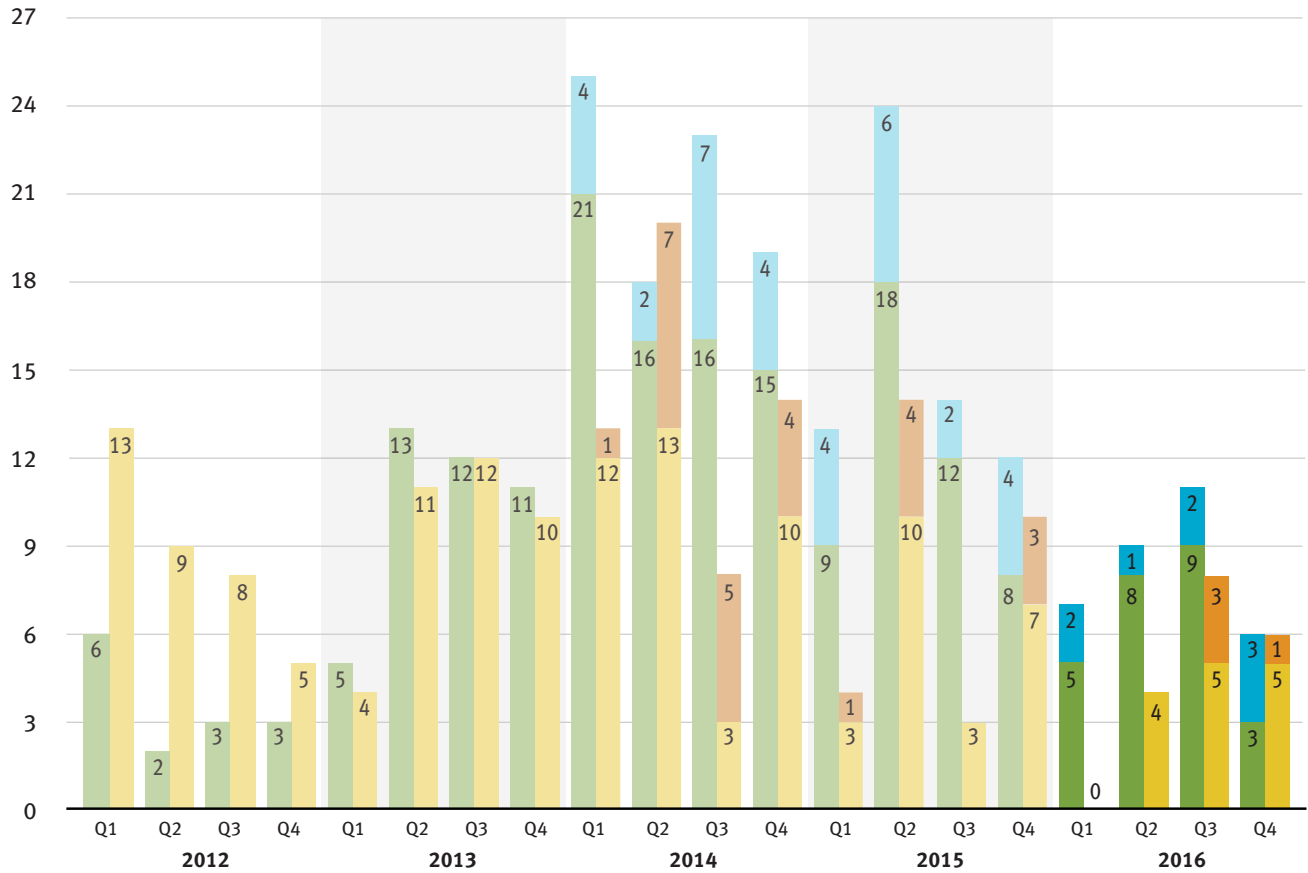
Deals in both sectors faced more positive pricing environments in the second half of 2016, at least in relation to the pricing objectives expressed in their road show prospectuses. Of the technology deals, 50% priced above their red herring range and of the life sciences deals, which in recent periods have faced greater pricing pressures, 60% priced in or above the range. On the flip side, half of the life sciences IPOs closed flat to down on the first day of trading. In contrast, technology IPOs generally performed well, with over 90% of Technology IPOs trading up on the first day of trading.

Other noteworthy observations included that in both the technology and life sciences sectors, the time between the initial confidential submission and the first day of trading was significantly longer than what we have historically observed, suggesting that many second half 2016 deals were “backlog” from prior periods. The percentage of deals with insiders buying in the IPO remained relatively consistent in the second half, with the level of insider purchasing declining somewhat.

Offerings Completed

The graph below shows the number of technology and life sciences IPOs completed during each quarter of 2012, 2013, 2014, 2015 and 2016.

IPOs PER QUARTER 2012–2016



Technology—U.S.

Technology—International

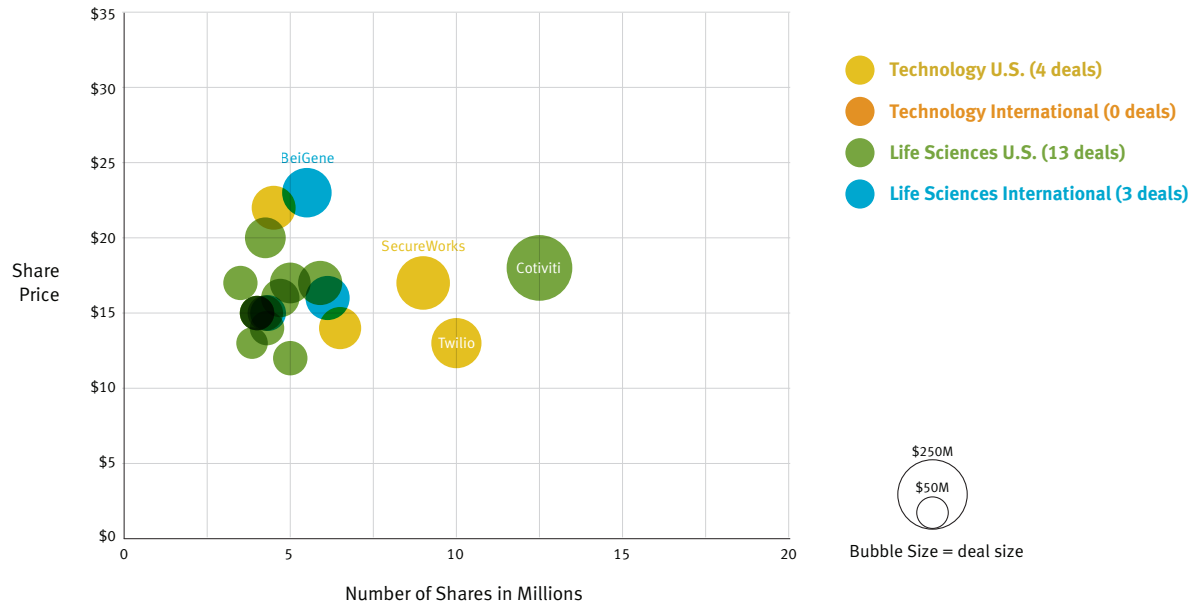
Life Sciences—U.S.

Life Sciences—International

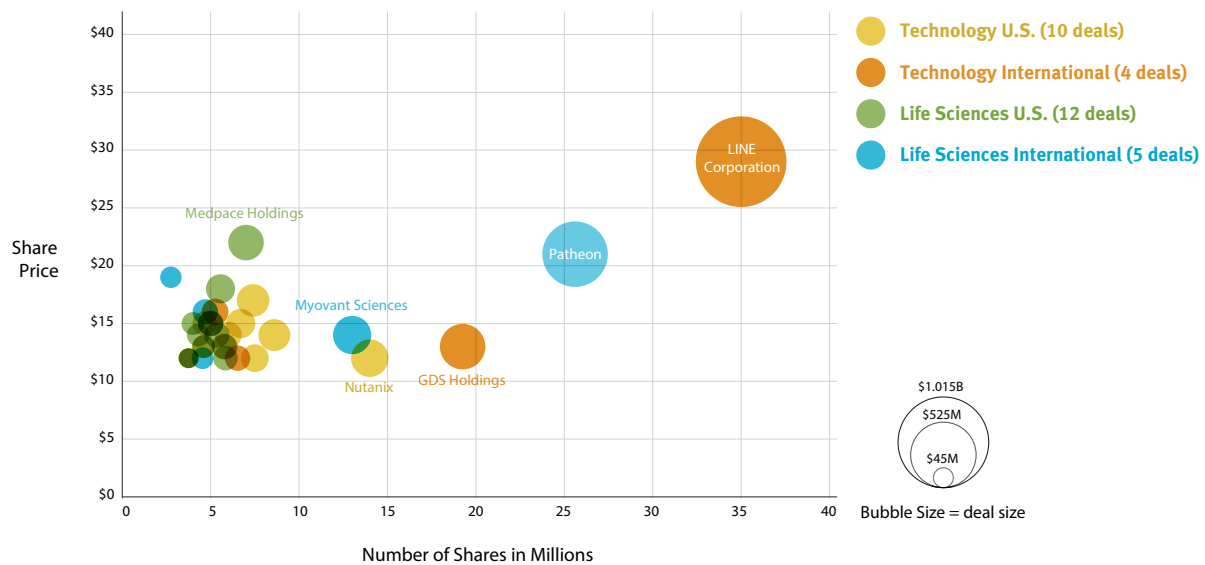
Size of Offerings, Red Herring Midpoint

The following scatter graphs plot technology and life sciences IPOs completed during the first half and second half of 2016 in terms of the initial offering price per share and number of shares offered based on the red herring stage of the offering.

RED HERRING DEAL COMPARISON (MIDPOINT PRICE): 2016, FIRST HALF



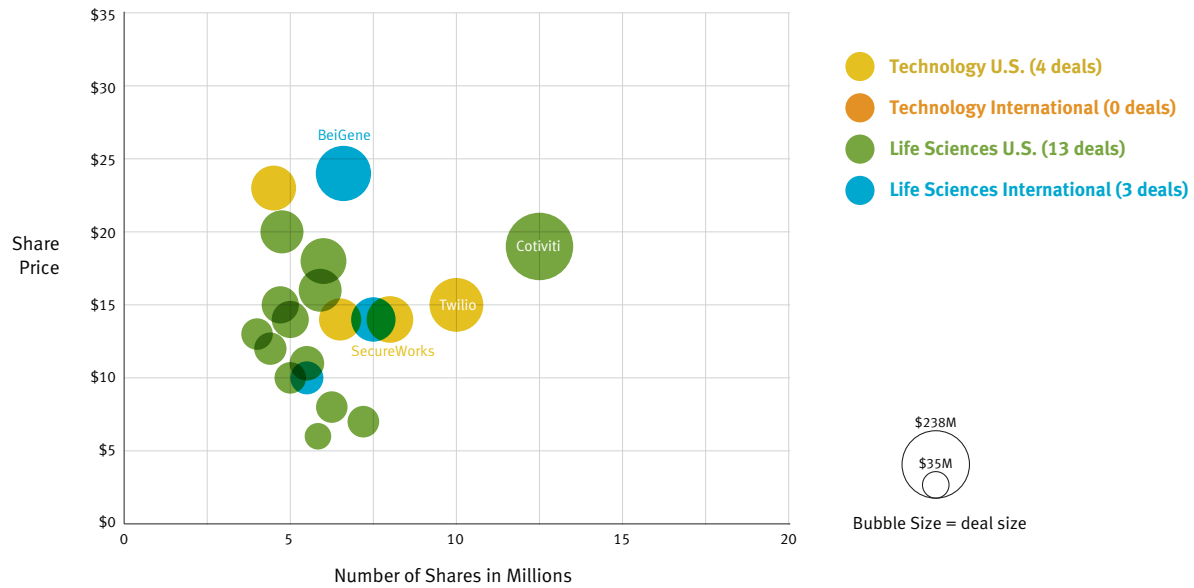
RED HERRING DEAL COMPARISON (MIDPOINT PRICE): 2016, SECOND HALF



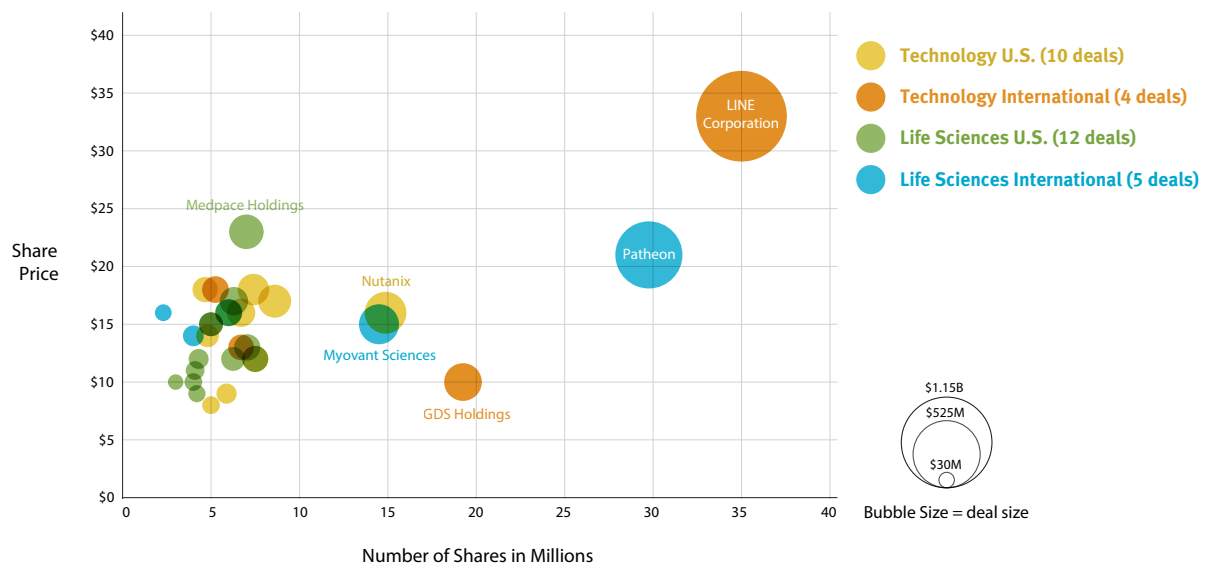
Size of Offerings, Final IPO Price

The following scatter graphs plot technology and life sciences IPOs completed during the first half and second half of 2016 in terms of the initial offering price per share and number of shares offered based on actual pricing of the offering.

IPO DEAL COMPARISON: 2016, FIRST HALF



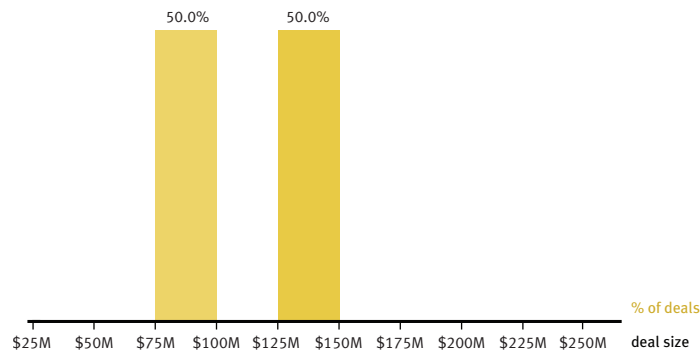
IPO DEAL COMPARISON: 2016, SECOND HALF



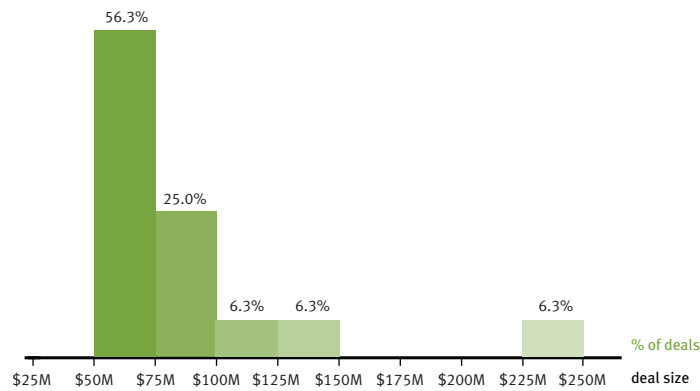
Aggregate Amount Raised, Red Herring Midpoint

The following graphs provide information about aggregate deal size at the red herring stage in the first half and second half of 2016.

DISTRIBUTION OF DEAL SIZE (RED HERRING MIDPOINT): 2016, FIRST HALF

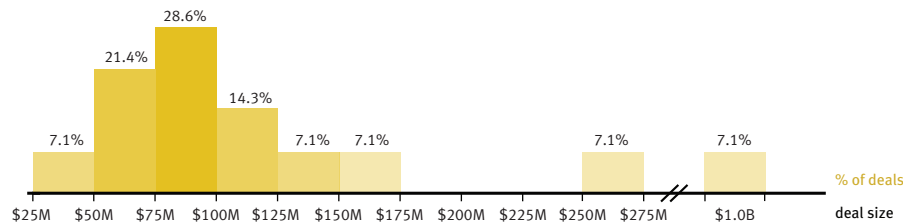


Technology Deal Size Distribution

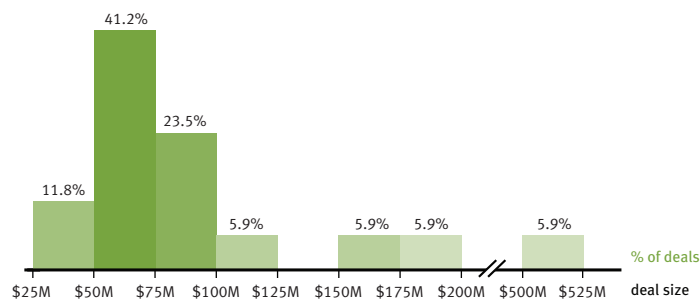


Life Sciences Deal Size Distribution

DISTRIBUTION OF DEAL SIZE (RED HERRING MIDPOINT): 2016, SECOND HALF



Technology Deal Size Distribution

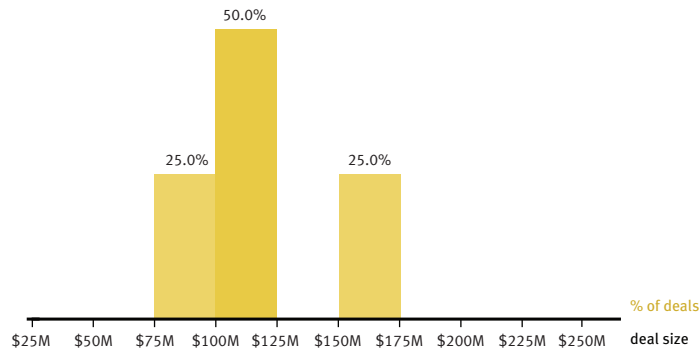


Life Sciences Deal Size Distribution

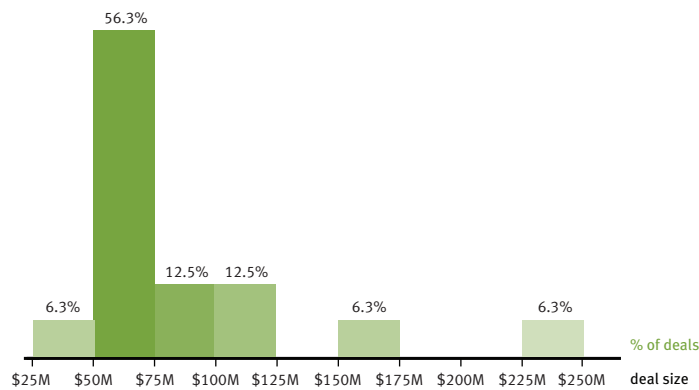
Aggregate Amount Raised, Final IPO Price

The following graphs provide information about aggregate deal size based on the actual pricing of the offering in the first half and second half of 2016.

DISTRIBUTION OF DEAL SIZE (FINAL IPO PRICE): 2016, FIRST HALF

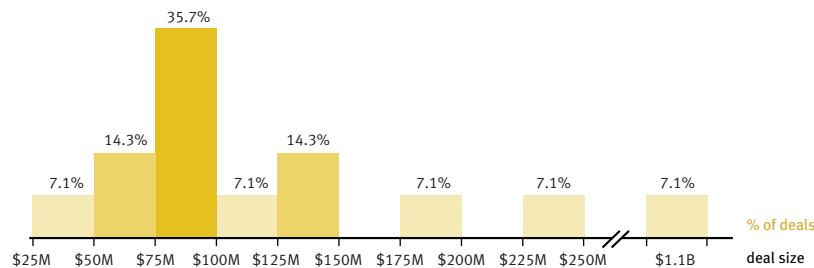


Technology Deal Size Distribution

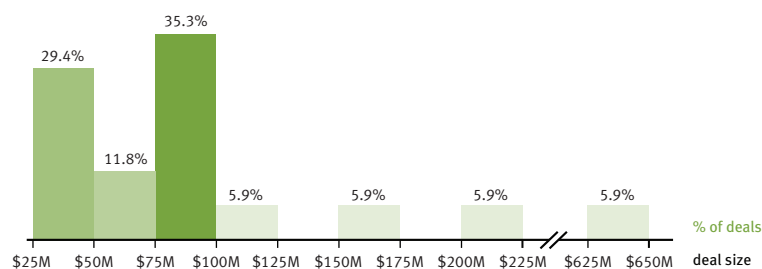


Life Sciences Deal Size Distribution

DISTRIBUTION OF DEAL SIZE (FINAL IPO PRICE): 2016, SECOND HALF



Technology Deal Size Distribution

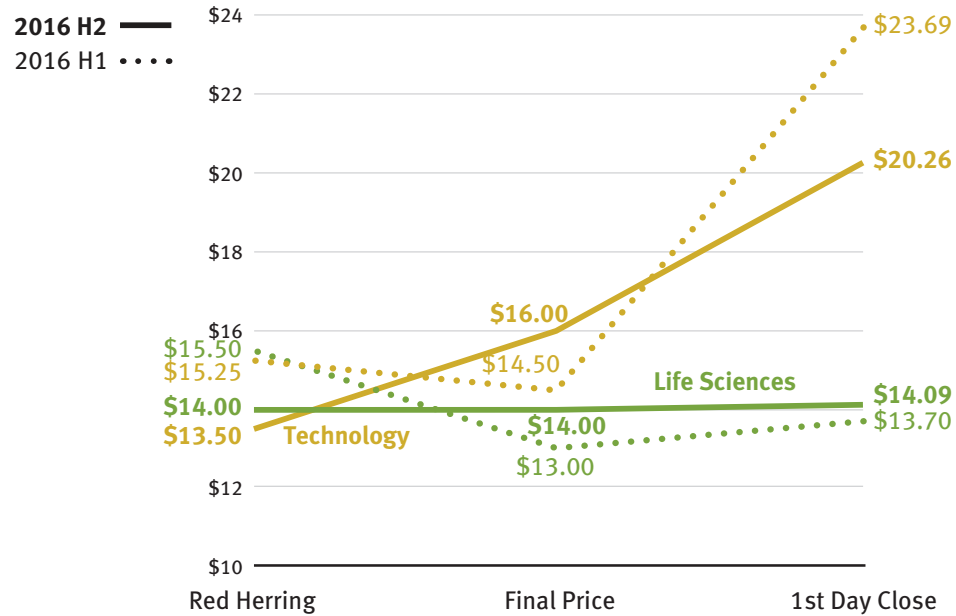


Life Sciences Deal Size Distribution

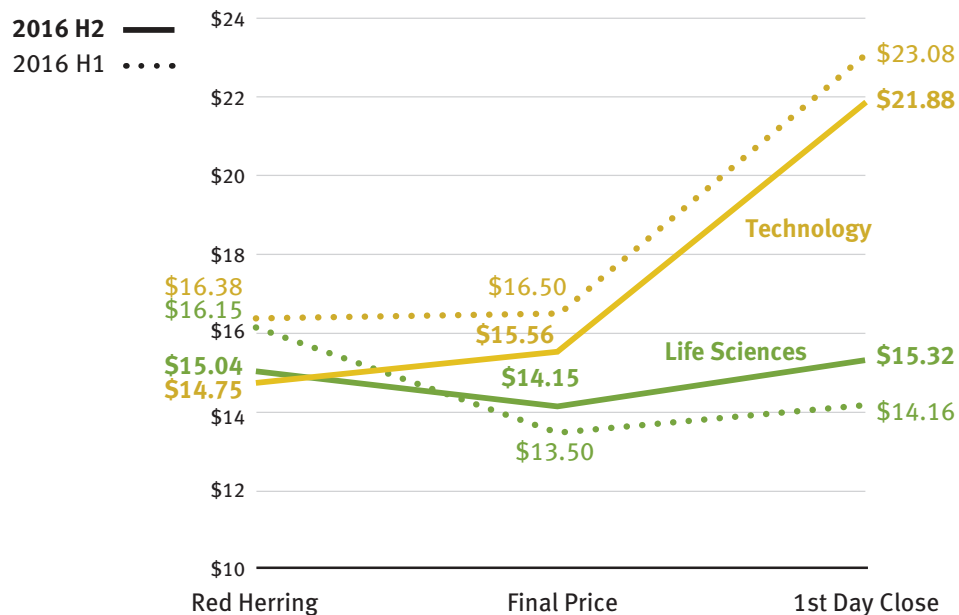
Price Changes Between the Red Herring and Initial Offering Price

Estimating the offering price for the IPO in the red herring prospectus and pricing the IPO upon completion of marketing efforts are processes that are part science and art. The graphs below show the median and average prices for technology and life sciences IPOs from the red herring stage to the actual public offering price to the close price on the first day of trading, for the first half and second half of 2016.

MEDIAN PRICES FOR TECHNOLOGY & LIFE SCIENCES IPO DEALS



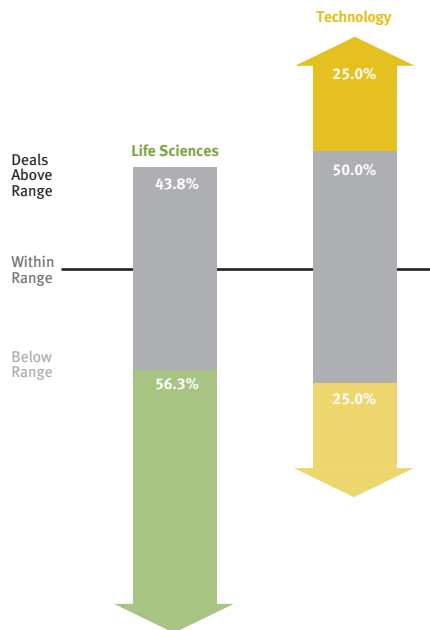
AVERAGE PRICES FOR TECHNOLOGY & LIFE SCIENCES IPO DEALS



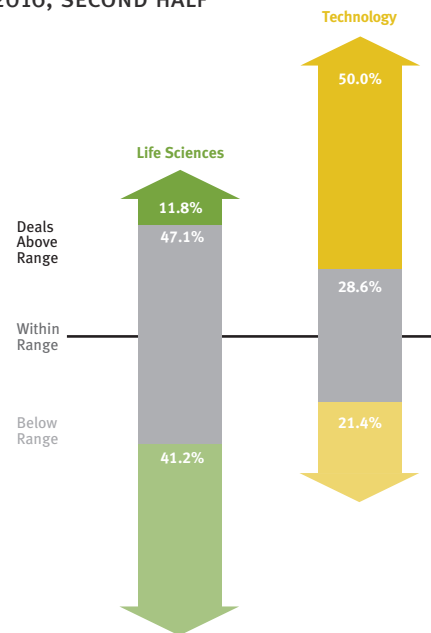
Price Changes (continued)

The first two graphs show the percentage of technology and life sciences IPOs with a final price that falls above, within and below the red herring range in the first half of 2016 compared with the second half of 2016. The lower graphs show the percentage of technology and life sciences deals that closed up, down or flat on their first day of trading in the first half of 2016 compared with the second half of 2016.

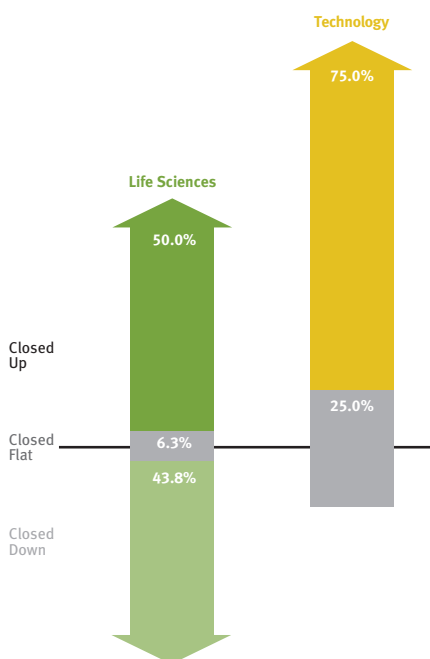
RELATION OF FINAL IPO PRICE TO ORIGINAL RED HERRING RANGE (% OF DEALS)
2016, FIRST HALF



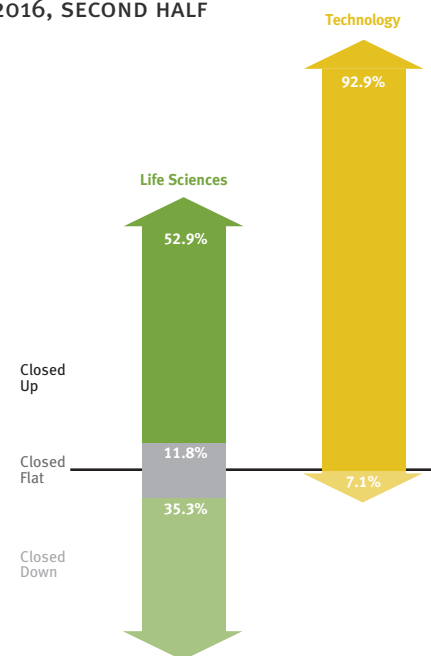
RELATION OF FINAL IPO PRICE TO ORIGINAL RED HERRING RANGE (% OF DEALS)
2016, SECOND HALF



RELATION OF PRICE AT 1ST DAY CLOSE TO FINAL IPO PRICE (% OF DEALS)
2016, FIRST HALF



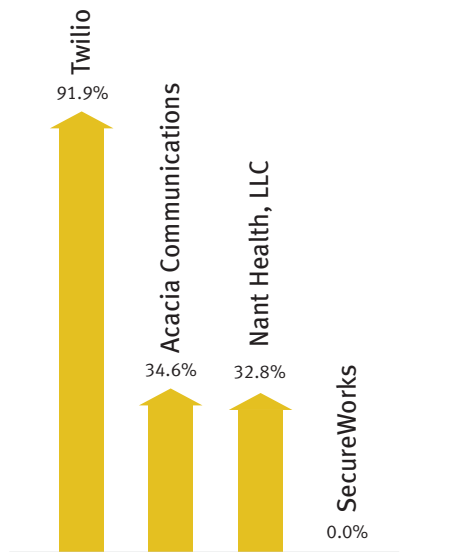
RELATION OF PRICE AT 1ST DAY CLOSE TO FINAL IPO PRICE (% OF DEALS)
2016, SECOND HALF



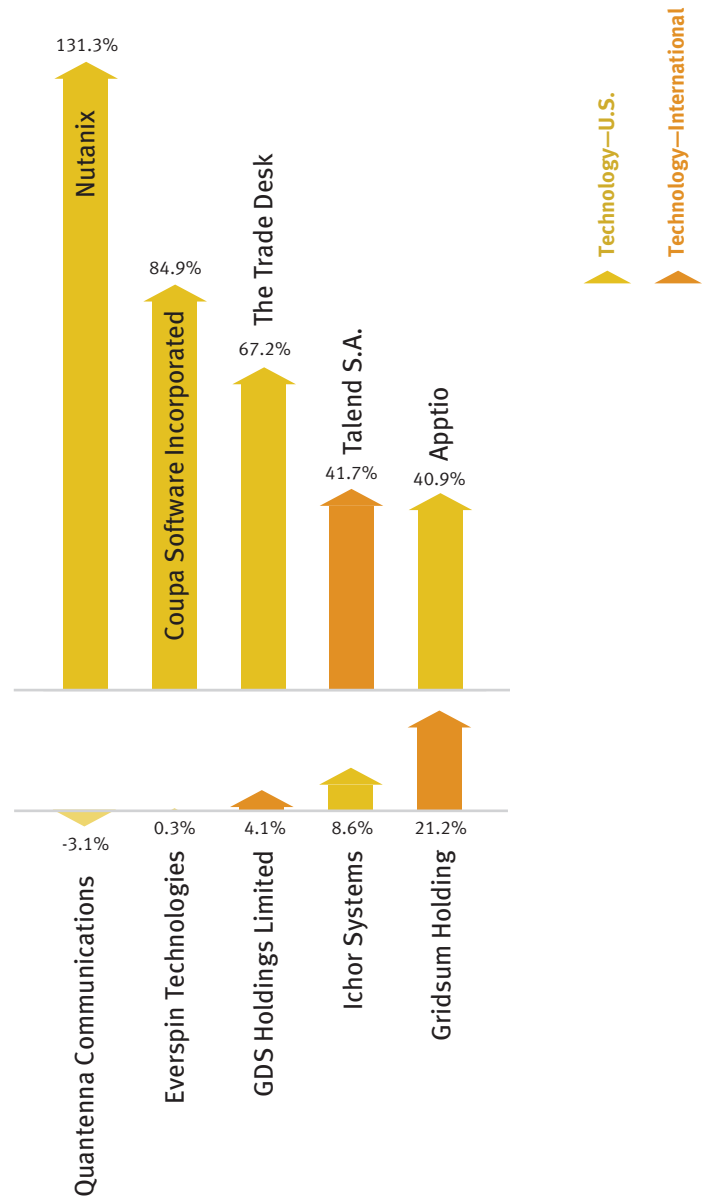
Price Changes *(continued)*

The graphs below show the five technology company IPOs with the largest percentage gain (four in H1 2016), and those with a loss, or the smallest gain, on the first day of trading for IPOs completed in the first and second half of 2016.

BIGGEST MOVERS – IPO PRICE TO PRICE AT 1ST DAY CLOSE 2016, FIRST HALF



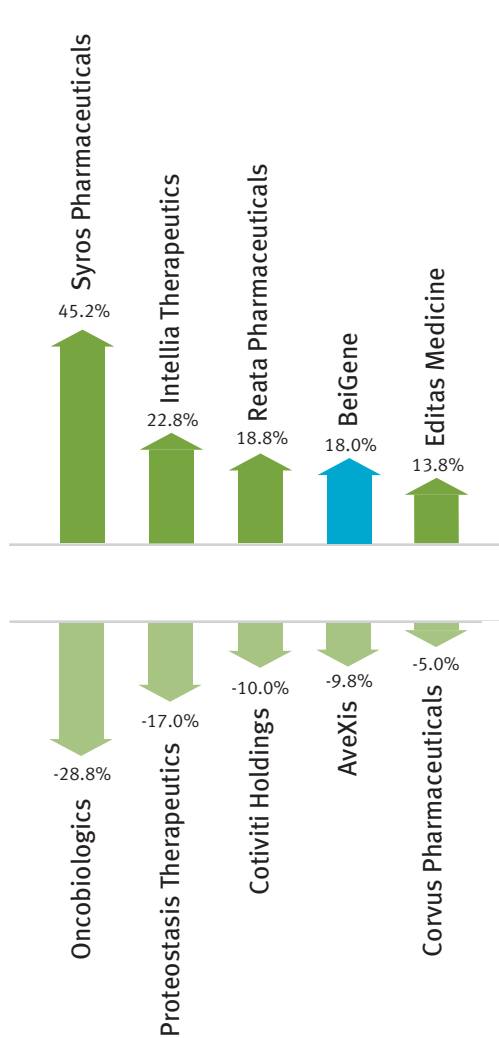
BIGGEST MOVERS – IPO PRICE TO PRICE AT 1ST DAY CLOSE 2016, SECOND HALF



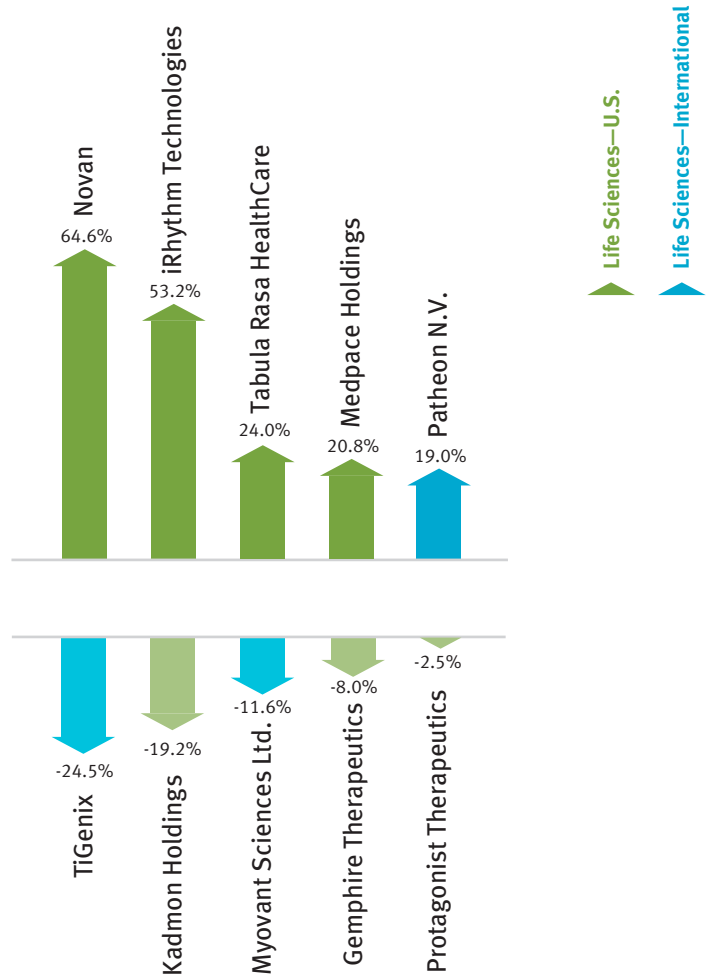
Price Changes (continued)

The graphs below show the five life sciences company IPOs with the largest percentage gain and loss on the first day of trading for IPOs completed in the first half and second half of 2016.

BIGGEST MOVERS – IPO PRICE TO PRICE AT 1ST DAY CLOSE 2016, FIRST HALF



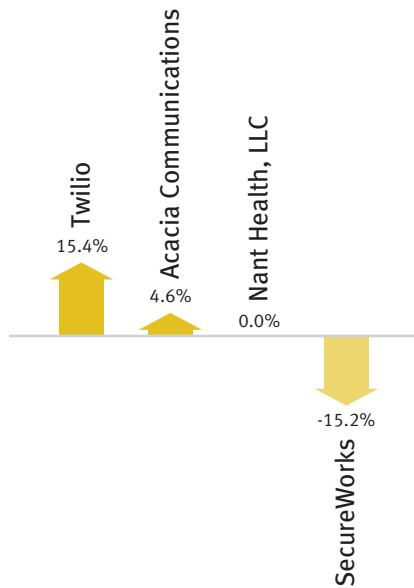
BIGGEST MOVERS – IPO PRICE TO PRICE AT 1ST DAY CLOSE 2016, SECOND HALF



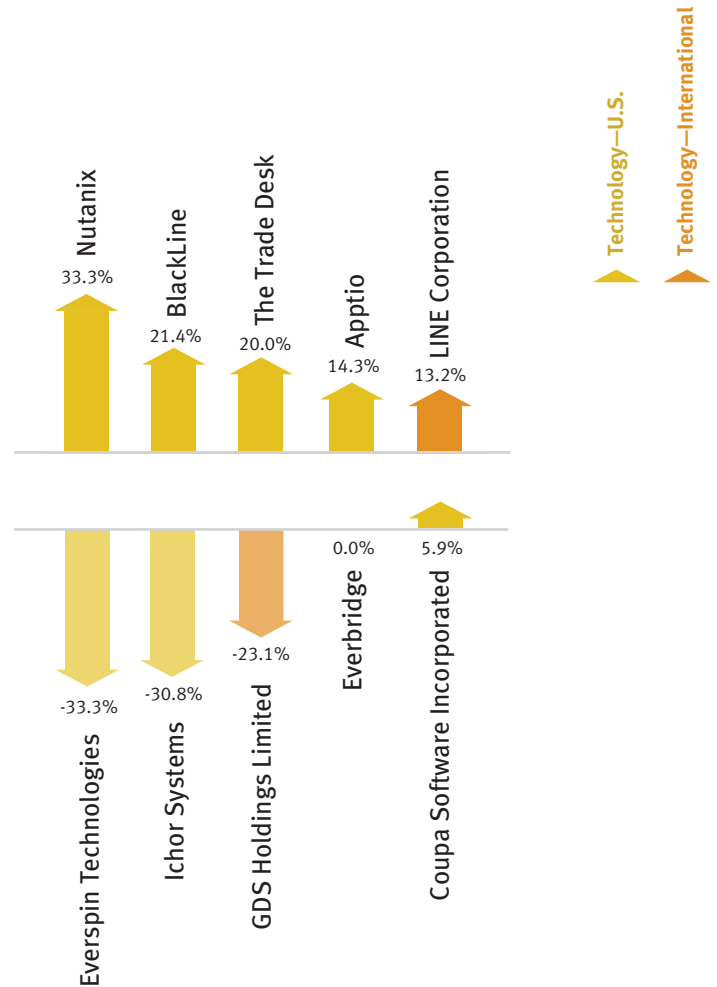
Price Changes *(continued)*

The graphs below show the technology company IPOs with the largest percentage increase, and largest percentage decrease/smallest percentage increase, from the red herring midpoint to the actual initial public offering price for IPOs completed in the first half and second half of 2016.

BIGGEST MOVERS – RED HERRING PRICE TO FINAL IPO PRICE 2016, FIRST HALF



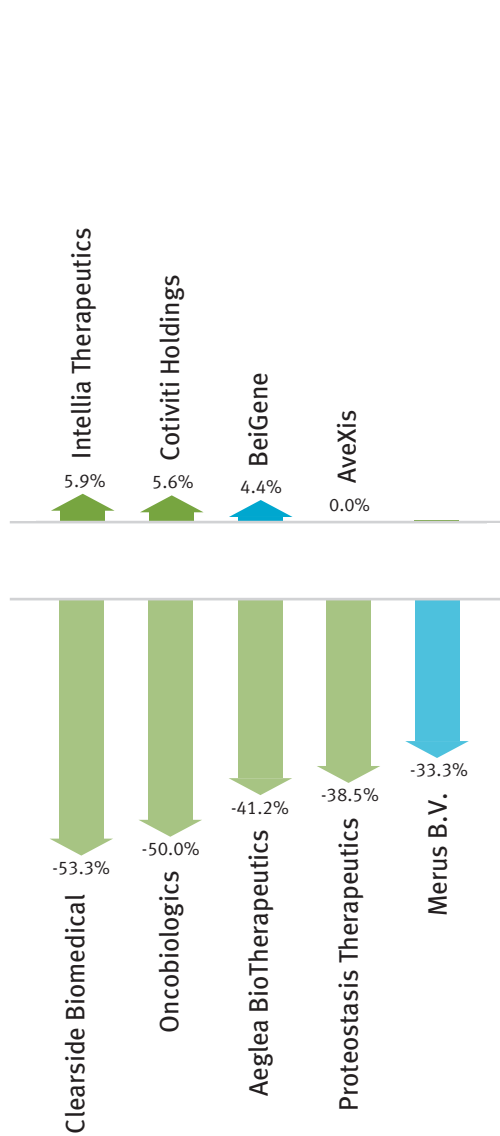
BIGGEST MOVERS – RED HERRING PRICE TO FINAL IPO PRICE 2016, SECOND HALF



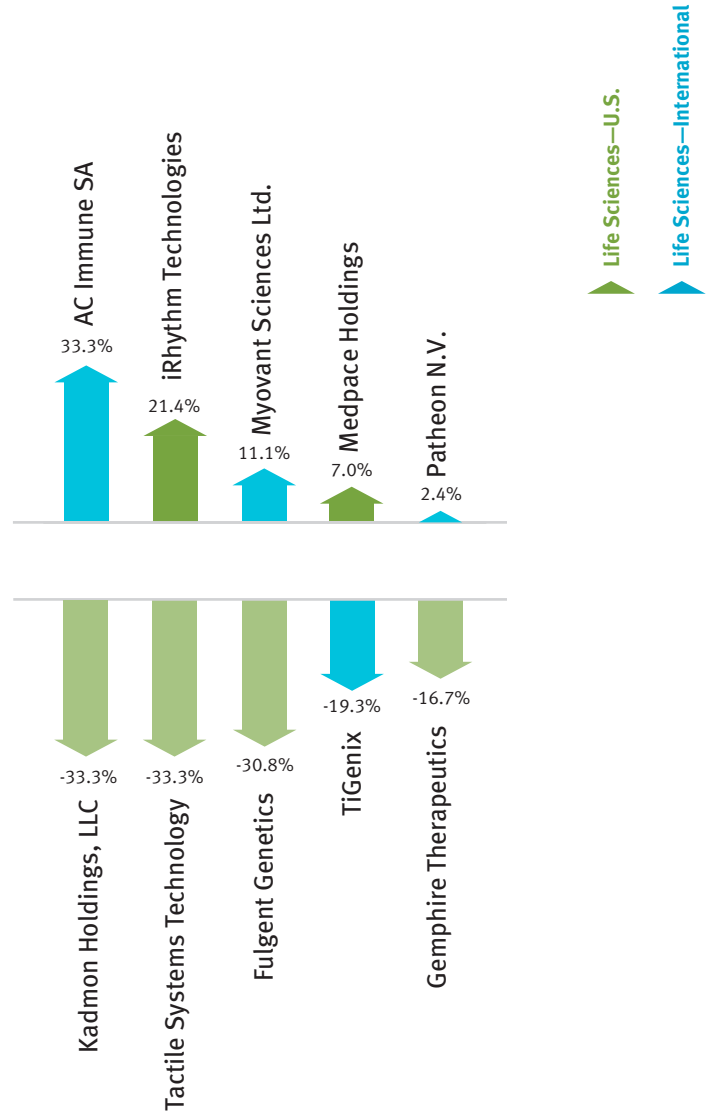
Price Changes (continued)

The graphs below show the five life sciences company IPOs with the largest percentage increase, and largest percentage decrease, from the red herring midpoint to the actual initial public offering price for IPOs completed in the first half of 2016 (with only four pricing at or above the midpoint) and second half of 2016.

BIGGEST MOVERS – RED HERRING PRICE TO FINAL IPO PRICE 2016, FIRST HALF



BIGGEST MOVERS – RED HERRING PRICE TO FINAL IPO PRICE 2016, SECOND HALF

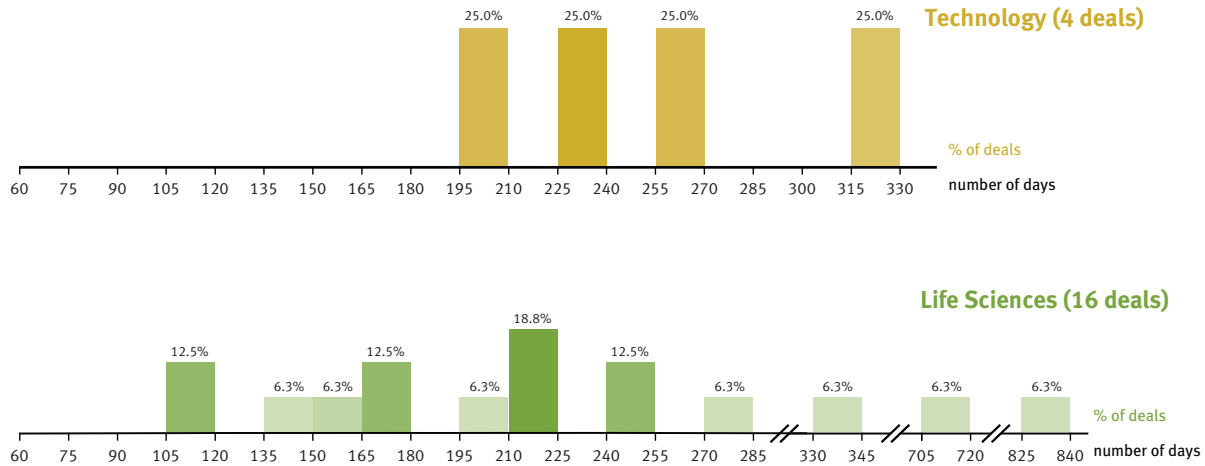


▲ Life Sciences—U.S.
▲ Life Sciences—International

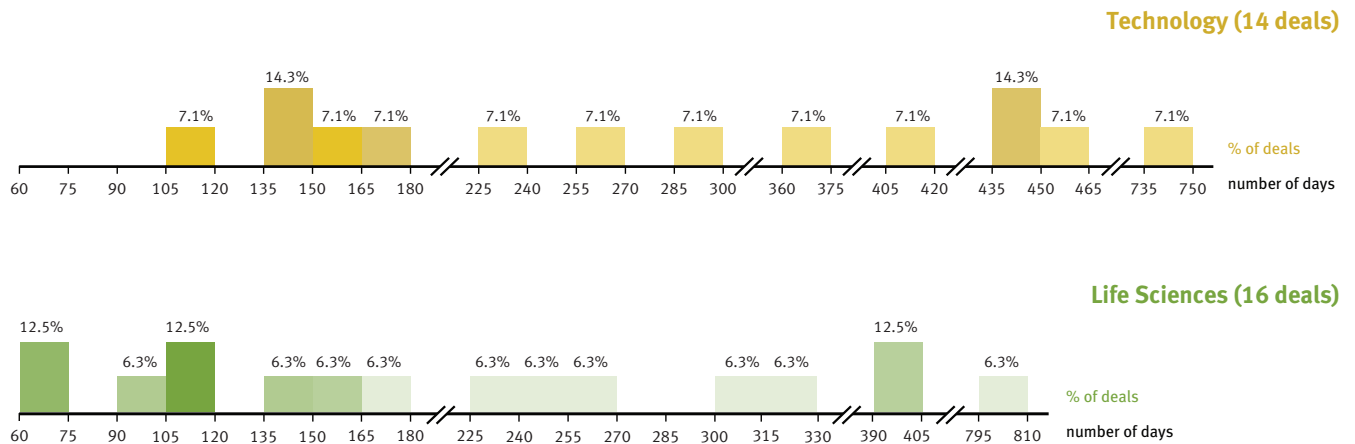
Confidential Submissions

For deals that began with a confidential filing, the graphs below show the number of days between the initial confidential submission and pricing. The graphs display the percentage of deals that priced within each 15-day period from the initial confidential submission date.

DISTRIBUTION OF DAYS BETWEEN INITIAL CONFIDENTIAL SUBMISSION AND FINAL PRICING
2016, FIRST HALF



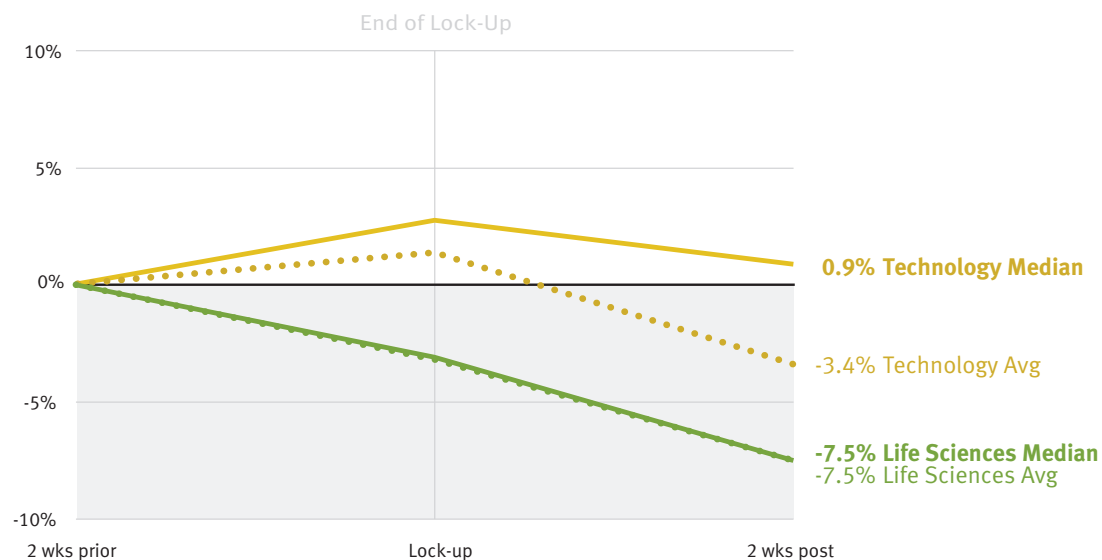
DISTRIBUTION OF DAYS BETWEEN INITIAL CONFIDENTIAL SUBMISSION AND FINAL PRICING
2016, SECOND HALF



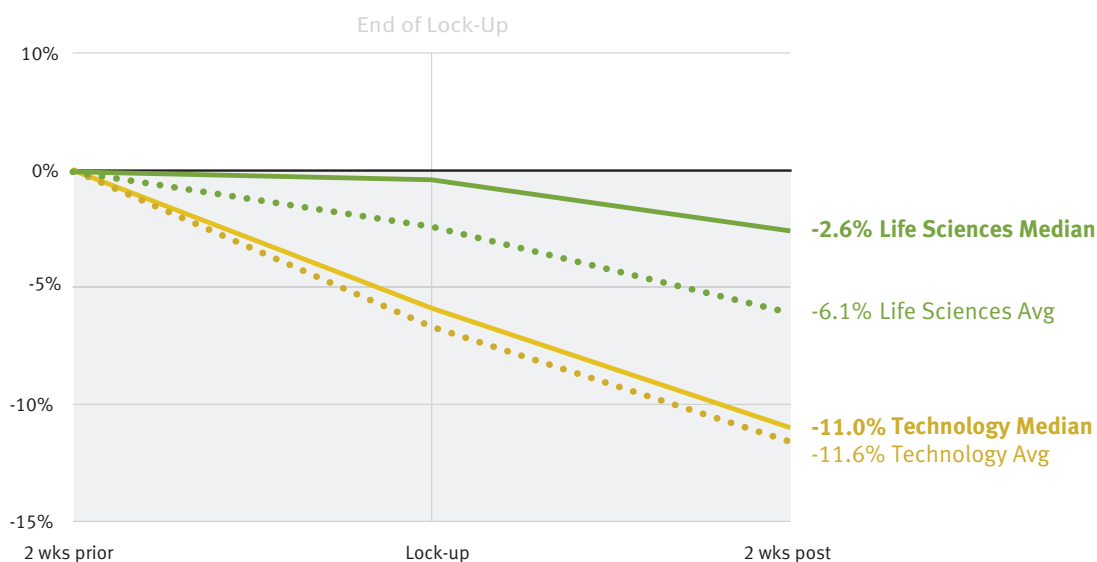
Price Changes Around the Expiration of the Lock-Up

In order to assist the development of an orderly market for the shares being offered, IPO underwriters require the stockholders of the offering company to agree not to sell shares of the company’s common stock for a specified period without the underwriters’ consent. Customarily, this period is 180 days and applies equally to all holders delivering the “lock-up” agreement, although in a few instances the lock-up may roll off in stages, and different holders may be subject to different restrictive periods. Upon expiration of the lock-up period, there generally is an influx of “supply,” as pre-IPO stockholders have their first ability to sell shares into the public market. The graphs below show the average and median changes in the closing trading price of the subject company shares for the period beginning two weeks prior, and ending two weeks following, the scheduled expiration of the lock-up period for lock-ups expiring in the first half and second half of 2016. Those companies completing IPOs in the second half of 2015 and a follow-on offering within 180 days are excluded from the first graph below. Those companies completing IPOs in the first half of 2016 and a follow-on offering within 180 days are excluded from the second graph below.

PERCENT CHANGE OF SHARE PRICES SURROUNDING END OF LOCK-UP PERIOD 2016, FIRST HALF



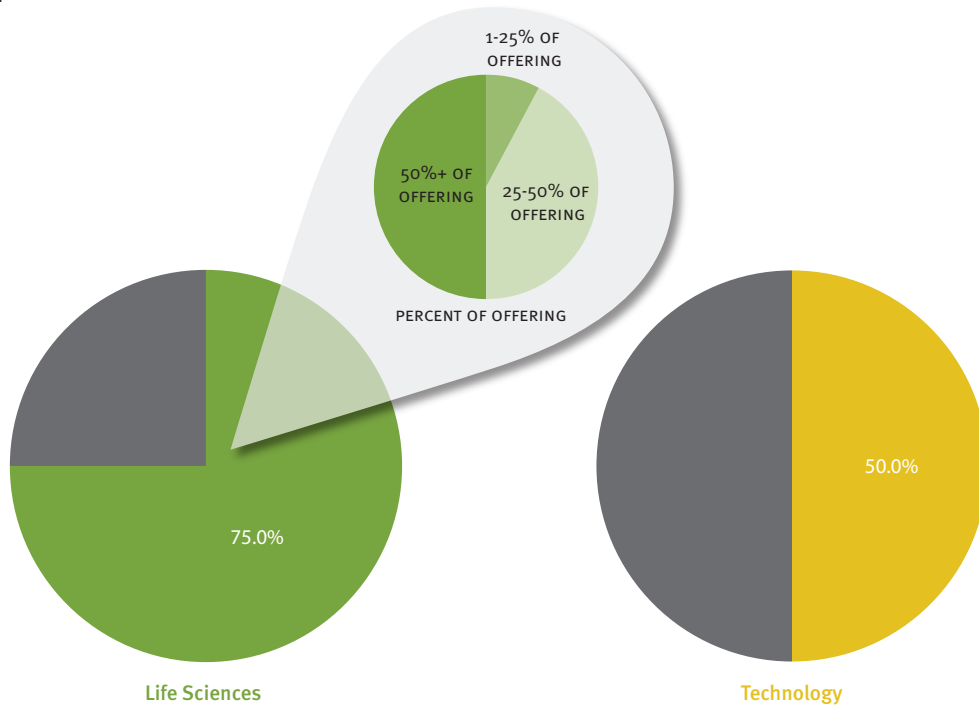
PERCENT CHANGE OF SHARE PRICES SURROUNDING END OF LOCK-UP PERIOD 2016, SECOND HALF



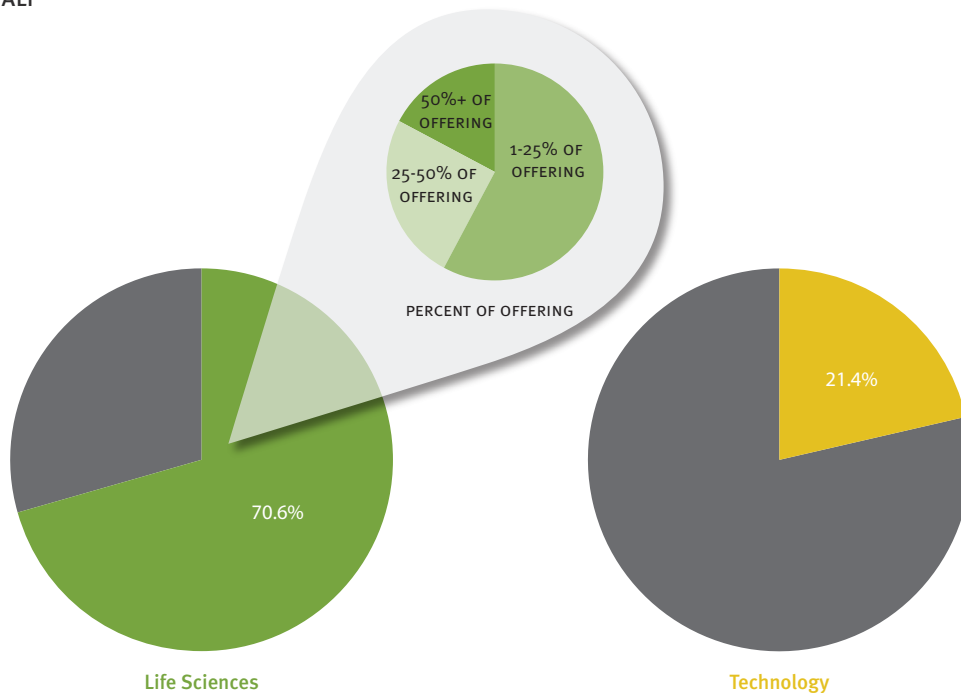
Insider Participation

The charts below show the percentage of life sciences and technology IPOs where the final prospectus indicated that specified “insiders” had expressed an interest in purchasing shares in the offering. Insiders are directors and officers of a company as well as existing stockholders. In this case, insiders are typically existing investors who buy additional shares in the IPO. Among life sciences IPOs with insider interest, the inset shows the breakdown of shares set aside for insiders.

PERCENTAGE OF DEALS WITH INSIDER PARTICIPATION AND PERCENTAGE OF OFFERING MADE AVAILABLE TO INSIDERS 2016, FIRST HALF



PERCENTAGE OF DEALS WITH INSIDER PARTICIPATION AND PERCENTAGE OF OFFERING MADE AVAILABLE TO INSIDERS 2016, SECOND HALF



Technology Offerings: H1 2016^{1, 2}

COMPANY NAME / TICKER SYMBOL	RED HERRING MIDPOINT	PRICED	FINAL SHARES ³	FINAL PRICING	FINAL DEAL SIZE
SecureWorks Corp. NasdaqGS:SCWX	\$16.50	4/2016	8,000,000	\$14.00	\$112,000,000
Acacia Communications, Inc. NasdaqGS:ACIA	\$22.00	5/2016	4,500,000	\$23.00	\$103,500,000
Nant Health, LLC NasdaqGS:NH	\$14.00	6/2016	6,500,000	\$14.00	\$91,000,000
Twilio Inc. NYSE:TWLO	\$13.00	6/2016	10,000,000	\$15.00	\$150,000,000

¹The survey does not include offerings on the OTC Bulletin Board, Nasdaq Capital Market or those with proceeds of less than \$10 million.

²Rows shaded in orange represent International Technology IPOs.

³Final share numbers do not reflect any exercise of the over-allotment option.

Technology Offerings: H2 2016^{1, 2}

COMPANY NAME / TICKER SYMBOL	RED HERRING MIDPOINT	PRICED	FINAL SHARES ³	FINAL PRICING	FINAL DEAL SIZE
LINE Corporation NYSE:LN	\$29.00	7/2016	35,000,000	\$32.84	\$1,149,400,000
Impinj, Inc. NasdaqGS:PI	\$13.00	7/2016	4,800,000	\$14.00	\$67,200,000
Talend S.A. NasdaqGM:TLND	\$16.00	7/2016	5,250,000	\$18.00	\$94,500,000
Everbridge, Inc. NasdaqGM:EVBG	\$12.00	9/2016	7,500,000	\$12.00	\$90,000,000
The Trade Desk, Inc. NasdaqGM:TTD	\$15.00	9/2016	4,666,667	\$18.00	\$84,000,006
Apptio, Inc. NasdaqGM:APTI	\$14.00	9/2016	6,000,000	\$16.00	\$96,000,000
Gridsum Holding Inc. NasdaqGS:GSUM	\$11.50	9/2016	6,700,000	\$13.00	\$87,100,000
Nutanix, Inc. NasdaqGS:NTNX	\$12.00	9/2016	14,870,000	\$16.00	\$237,920,000
Coupa Software Incorporated NasdaqGS:COUP	\$17.00	10/2016	7,400,000	\$18.00	\$133,200,000
Everspin Technologies, Inc. NasdaqGM:MRAM	\$12.00	10/2016	5,000,000	\$8.00	\$40,000,000
BlackLine, Inc. NasdaqGS:BL	\$14.00	10/2016	8,600,000	\$17.00	\$146,200,000
Quantenna Communications, Inc. NasdaqGS:QTNA	\$15.00	10/2016	6,700,000	\$16.00	\$107,200,000
GDS Holdings Limited NasdaqGM:GDS	\$13.00	11/2016	19,250,000	\$10.00	\$192,500,000
Ichor Systems, Inc. NasdaqGS:ICHR	\$13.00	12/2016	5,877,778	\$9.00	\$52,900,002

¹The survey does not include offerings on the OTC Bulletin Board, Nasdaq Capital Market or those with proceeds of less than \$10 million.

²Rows shaded in orange represent International Technology IPOs.

³Final share numbers do not reflect any exercise of the over-allotment option.

Life Sciences Offerings: H1 2016^{1, 2}

COMPANY NAME / TICKER SYMBOL	RED HERRING MIDPOINT	PRICED	FINAL SHARES ³	FINAL PRICING	FINAL DEAL SIZE
Editas Medicine, Inc. NasdaqGS:EDIT	\$17.00	2/2016	5,900,000	\$16.00	\$94,400,000
BeiGene, Ltd. NasdaqGS:BGNE	\$23.00	2/2016	6,600,000	\$24.00	\$158,400,000
AveXis, Inc. NasdaqGS:AVXS	\$20.00	2/2016	4,750,000	\$20.00	\$95,000,000
Proteostasis Therapeutics, Inc. NasdaqGM:PTI	\$13.00	2/2016	6,250,000	\$8.00	\$50,000,000
Syndax Pharmaceuticals, Inc. NasdaqGS:SNDX	\$14.00	3/2016	4,400,000	\$12.00	\$52,800,000
Hutchison China MediTech Limited NasdaqGS:HCM	\$16.33	3/2016	7,500,000	\$13.50	\$101,250,000
Corvus Pharmaceuticals, Inc. NasdaqGM:CRVS	\$16.00	3/2016	4,700,000	\$15.00	\$70,500,000
Aeglea BioTherapeutics, Inc. NasdaqGM:AGLE	\$17.00	4/2016	5,000,000	\$10.00	\$50,000,000
Intellia Therapeutics, Inc. NasdaqGM:NTLA	\$17.00	5/2016	6,000,000	\$18.00	\$108,000,000
Oncobiologics, Inc. NasdaqGM:ONS	\$12.00	5/2016	5,833,334	\$6.00	\$35,000,004
Merus B.V. NasdaqGM:MRUS	\$15.00	5/2016	5,500,000	\$10.00	\$55,000,000
Cotiviti Holdings, Inc. NYSE:COTV	\$18.00	5/2016	12,500,000	\$19.00	\$237,500,000
Reata Pharmaceuticals, Inc. NasdaqGM:RETA	\$15.00	5/2016	5,500,000	\$11.00	\$60,500,000
Clearside Biomedical, Inc. NasdaqGM:CLSD	\$15.00	6/2016	7,200,000	\$7.00	\$50,400,000
Selecta Biosciences, Inc. NasdaqGM:SELB	\$15.00	6/2016	5,000,000	\$14.00	\$70,000,000
Syros Pharmaceuticals, Inc. NasdaqGS:SYRS	\$15.00	6/2016	4,000,000	\$12.50	\$50,000,000

¹The survey does not include offerings on the OTC Bulletin Board, Nasdaq Capital Market or those with proceeds of less than \$10 million.

²Rows shaded in blue represent International Life Sciences IPOs.

³Final share numbers do not reflect any exercise of the over-allotment option.

Life Sciences Offerings: H2 2016^{1, 2}

COMPANY NAME / TICKER SYMBOL	RED HERRING MIDPOINT	PRICED	FINAL SHARES ³	FINAL PRICING	FINAL DEAL SIZE
Audentes Therapeutics, Inc. NasdaqGM:BOLD	\$15.00	7/2016	5,000,000	\$15.00	\$75,000,000
Patheon N.V. NYSE:PTHN	\$20.50	7/2016	29,761,905	\$21.00	\$625,000,005
Kadmon Holdings, LLC NYSE:KDMN	\$18.00	7/2016	6,250,000	\$12.00	\$75,000,000
Tactile Systems Technology, Inc. NasdaqGM:TCMD	\$15.00	7/2016	4,000,000	\$10.00	\$40,000,000
Gemphire Therapeutics Inc. NasdaqGM:GEMP	\$12.00	8/2016	3,000,000	\$10.00	\$30,000,000
Medpace Holdings, Inc. NasdaqGM:MEDP	\$21.50	8/2016	7,000,000	\$23.00	\$161,000,000
Protagonist Therapeutics, Inc. NasdaqGM:PTGX	\$12.00	8/2016	7,500,000	\$12.00	\$90,000,000
Novan, Inc. NasdaqGM:NOVN	\$12.00	9/2016	4,100,000	\$11.00	\$45,100,000
AC Immune SA NasdaqGM:ACIU	\$12.00	9/2016	6,000,000	\$16.00	\$96,000,000
Fulgent Genetics, Inc. NasdaqGM:FLGT	\$13.00	9/2016	4,200,000	\$9.00	\$37,800,000
Tabula Rasa HealthCare, Inc. NasdaqGM:TRHC	\$14.00	9/2016	4,300,000	\$12.00	\$51,600,000
Obalon Therapeutics, Inc. NasdaqGM:OBLN	\$15.00	10/2016	5,000,000	\$15.00	\$75,000,000
CRISPR Therapeutics AG NasdaqGM:CRSP	\$16.00	10/2016	4,000,000	\$14.00	\$56,000,000
iRhythm Technologies, Inc. NasdaqGM:IRTC	\$14.00	10/2016	6,294,118	\$17.00	\$107,000,006
Ra Pharmaceuticals, Inc. NasdaqGM:RARX	\$13.00	10/2016	7,049,230	\$13.00	\$91,639,990
Myovant Sciences Ltd. NYSE:MYOV	\$13.50	10/2016	14,500,000	\$15.00	\$217,500,000
TiGenix NasdaqGS:TIG	\$19.20	12/2016	2,300,000	\$15.50	\$35,650,000

¹The survey does not include offerings on the OTC Bulletin Board, Nasdaq Capital Market or those with proceeds of less than \$10 million.

²Rows shaded in blue represent International Life Sciences IPOs.

³Final share numbers do not reflect any exercise of the over-allotment option.

Methodology

Data points used in the compilation and analysis of this information were gathered using a variety of resources, including, but not limited to, filings made with the U.S. Securities and Exchange Commission, lock-up expiration dates from EDGAR Online IPO Deal Data and daily stock-trading price data. The exact dates upon which lock-ups expired were estimated based on disclosure in the prospectuses and may further be approximate in the case of dates falling on holidays or weekends. Companies were assigned to the Technology and Life Sciences sectors based on SIC codes and other company descriptors.

The information in the graphs and tables regarding offering size does not reflect any exercise of the underwriters' over-allotment, or green shoe, option. Information at the red herring stage is based on the midpoint of the range and on the number of shares offered, as reflected on the cover page of the first preliminary, or red herring, prospectus. The information regarding the actual offering size is based on the price to the public and the aggregate number of shares offered, as reflected on the cover page of the final prospectus. The closing price on the first day of trading is the closing price on the company's primary exchange on the first day of public trading of the shares following the pricing of the offering.

Disclaimer

The preparation of the information contained herein involves assumptions, compilations and analysis, and there can be no assurance that the information provided herein is error-free. Neither Fenwick & West LLP nor any of its partners, associates, staff or agents shall have any liability for any information contained herein, including any errors or incompleteness. The contents of this report are not intended, and should not be considered, as legal advice or opinion.

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+15.18%

+9.12%

+4.34%