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Key Metrics for Technology and Life Sciences Initial Public Offerings 2018 Full Year

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2018 Full Year

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Contact the authors or members of your client service team to discuss the report or for more information.

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42.1256
31.2540

25.4821
31.2540

42.1781
25.4821

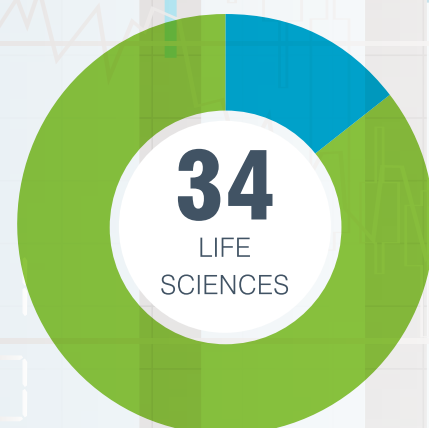
42.1256



Survey Results

Life Sciences and Tech IPOs Continued Hot Streak in Second Half

NUMBER OF IPO DEALS IN H2 2018



The life sciences and technology IPO markets continued their strong performance in the second half of 2018, notwithstanding significant market volatility, a sharp decline in the stock market and a looming federal government shutdown at the end of the year.

The year started slowly but then quickly gained steam with an unusual number of IPOs over the summer before activity slowed again in the last few months.

By the Numbers

The 57 life sciences and technology offerings completed in the second half of 2018 were on par with the 56 in the first half of the year and made for the highest number for a half-year period since the first half of 2015, when 55 such offerings were completed.

The 34 life sciences offerings completed in the second half of 2018 were the highest number since 37 were completed in the first half of 2015. Technology offerings in the second half of 2018, with 23 IPOs, matched the number in the first half of 2018.

Though the year ended with a dip as many companies, including highly valued tech unicorns, put their offerings on hold—thanks in large part to market and political uncertainty—the resulting pent up demand from institutional investors will likely have a ripple effect in the market, making for a strong 2019 for IPOs.

Valuations

Unlike the first half of 2018, when the vast majority of technology deals produced offering proceeds in excess of \$100 million, the second half of the year was marked by an unusually large spread in valuations. About 17% of tech deals priced in the \$50 million to \$75 million range on the low end, and about the same percent priced at \$1 billion or more at the higher end. Life sciences offerings showed more of a sweet spot in amounts raised: The majority of IPOs in the second half of the year raised between \$50 million and \$125 million with 23.5% in the \$50 million to \$75 million range. Only four offerings in the second half of 2018 had proceeds of more than \$1 billion. The largest was a technology offering for China-based Pinduoduo that raised \$1.6 billion. The largest life sciences offering, Elanco Animal Health Incorporated, raised just over \$1.5 billion. The second half of 2018 included 19 offshore companies, compared with 17 in the first half of 2018.

Insider Participation

A surprisingly high percentage of tech IPOs—65.2%—reported insider participation, which is three times higher than the 20% of tech IPOs in the first half where insiders participated. Existing investors bought into 15 of the 23 tech IPOs in the second half of the year.

Approximately 65% of life sciences deals saw insiders purchasing IPO shares and/or purchasing shares in a simultaneous private placement (down from about 80% in the first half).

Dual-Class Share Structure

The dual-class capital structure continued to be widely utilized by technology companies, as 13 technology IPOs featured this structure, compared to 15 in the first half. Only one life sciences company had a dual-class structure, the same as in the first half.

Pricing

The clear majority of offerings in the second half of 2018 priced within or above-range, 82.6% of tech offerings and 79.4% of life sciences offerings, underscoring a relatively strong and stable market environment. Just four technology offerings and seven life sciences offerings priced below the red herring range.

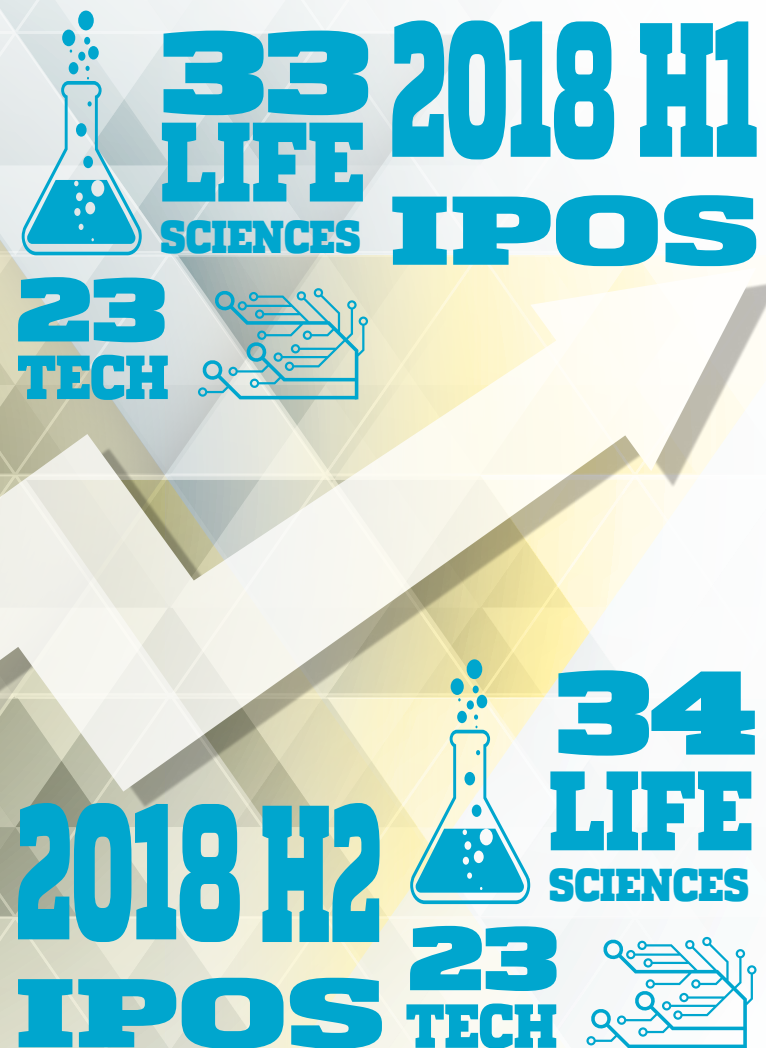
The results indicate that last year's IPOs were well priced with healthy but modest first-day gains. Consistent with prior half-year periods, technology offerings enjoyed stronger first-day trading as 87% traded up at first day close compared to 64.7% of life sciences offerings.

Outlook

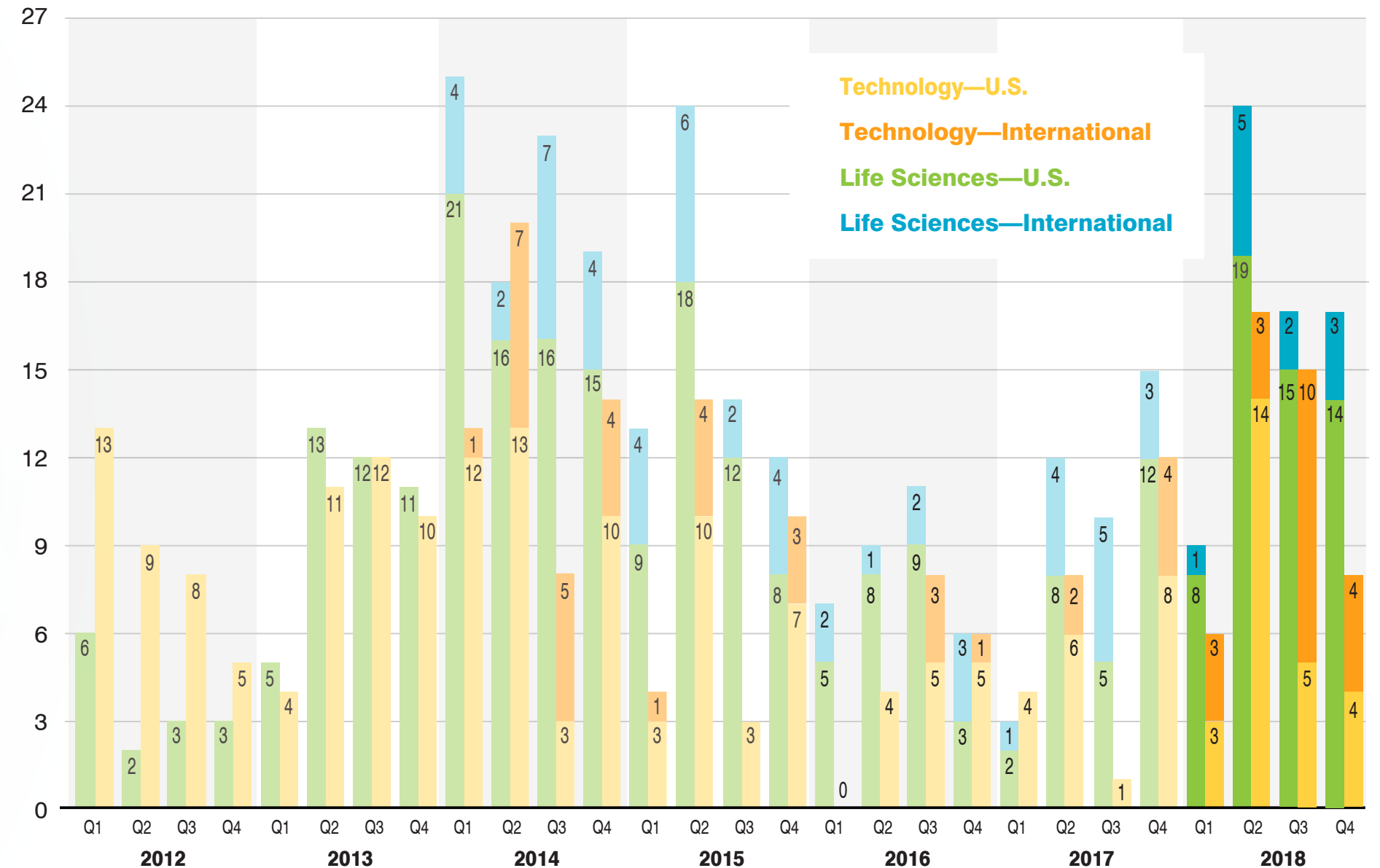
Our 2018 data suggests a healthy and stable market, with deals well priced, trending up on average 90% on first-day close for tech and 65% for life sciences. That bodes well for 2019 and we are starting to see that play out. We currently view the market as highly receptive.

Offerings Completed

This graph shows the number of technology and life sciences IPOs completed during each quarter of 2012 through 2018.



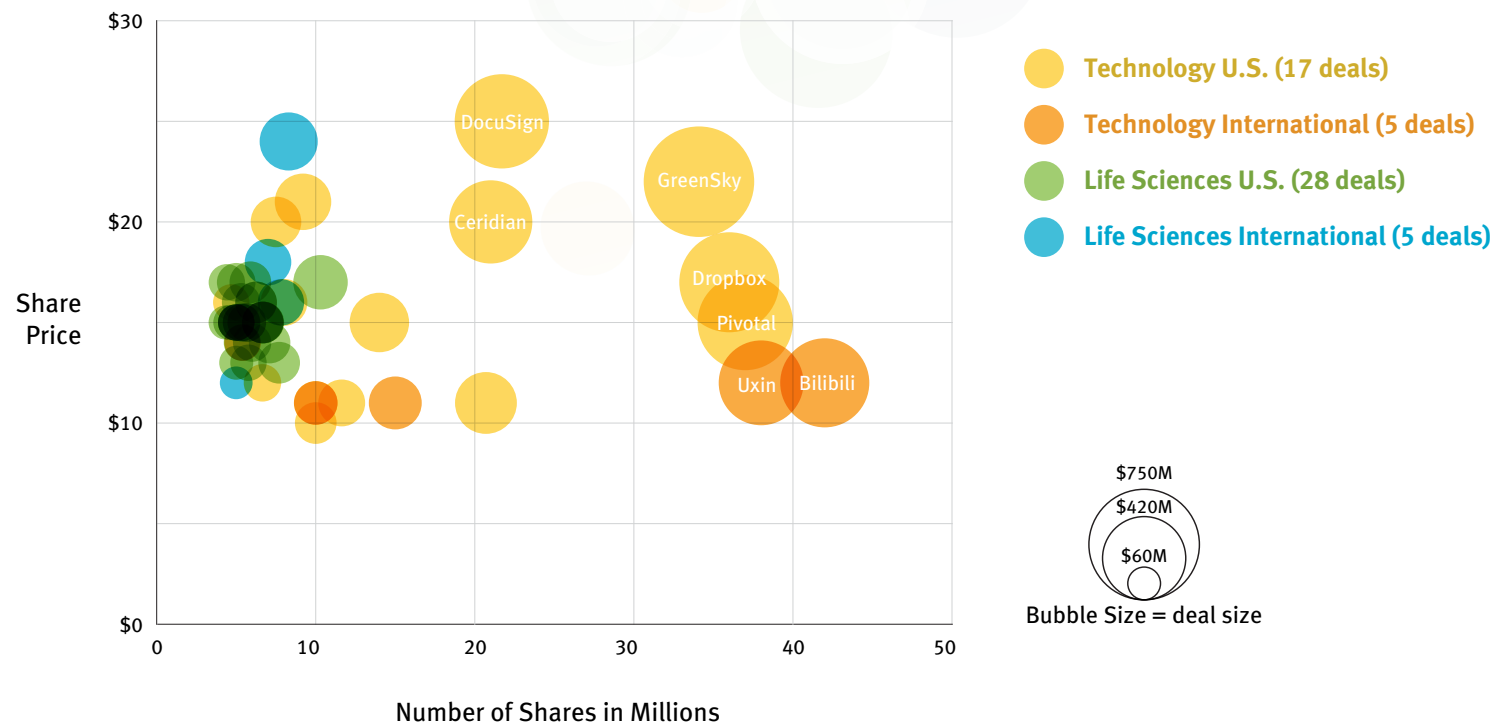
IPOS PER QUARTER 2012–2018



Size of Offerings, Red Herring Midpoint

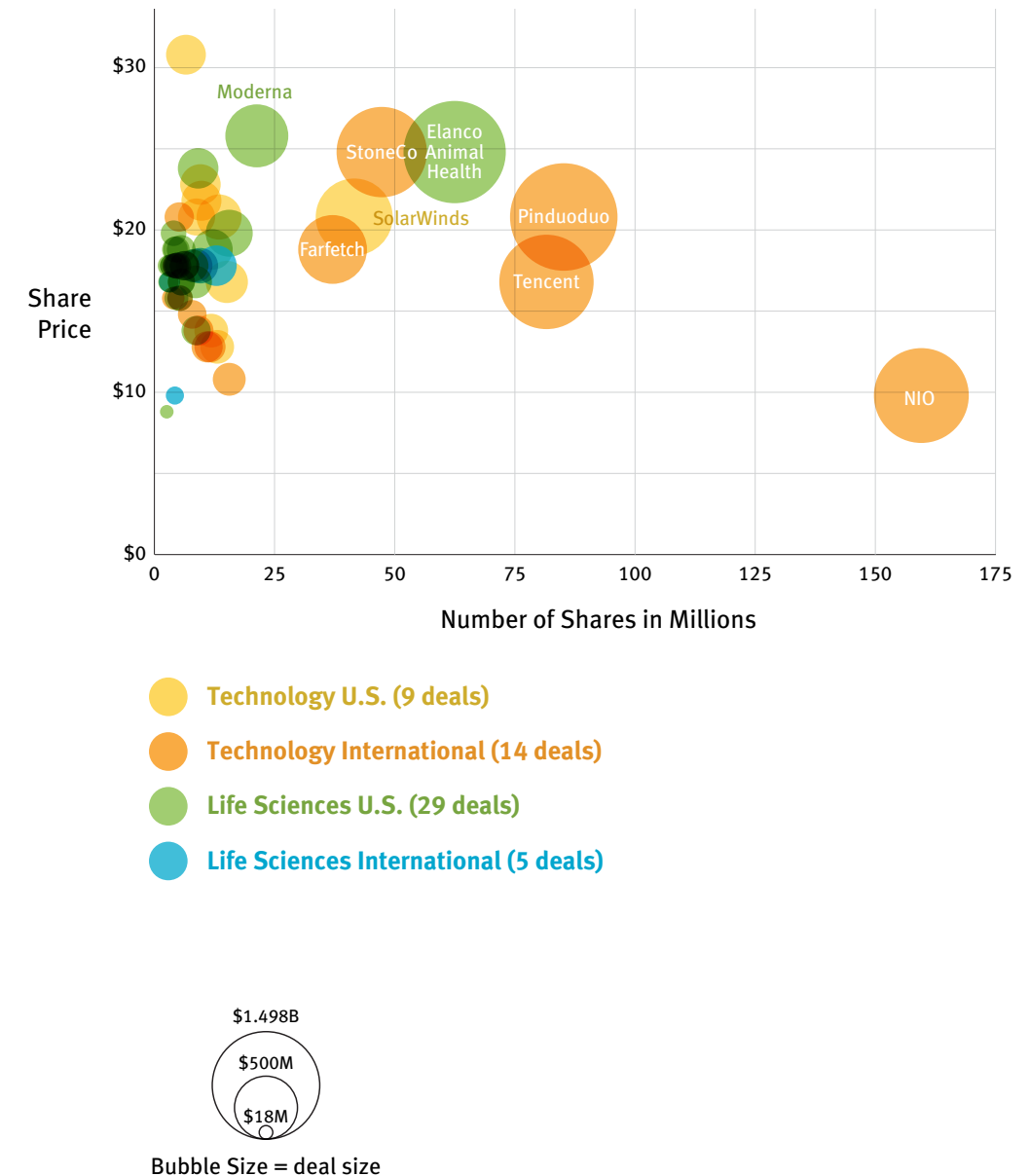
The following scatter graphs plot technology and life sciences IPOs completed during the first and second half of 2018 in terms of the initial offering price per share and number of shares offered based on the red herring prospectus.

RED HERRING DEAL COMPARISON (MIDPOINT PRICE): 2018, FIRST HALF



This graph excludes Spotify and ASLAN Pharmaceuticals, as neither offering had a price range. iQIYI as an outlier was also excluded, with a deal size of \$2.3 billion, a share price of \$18.00 and 125 million shares.

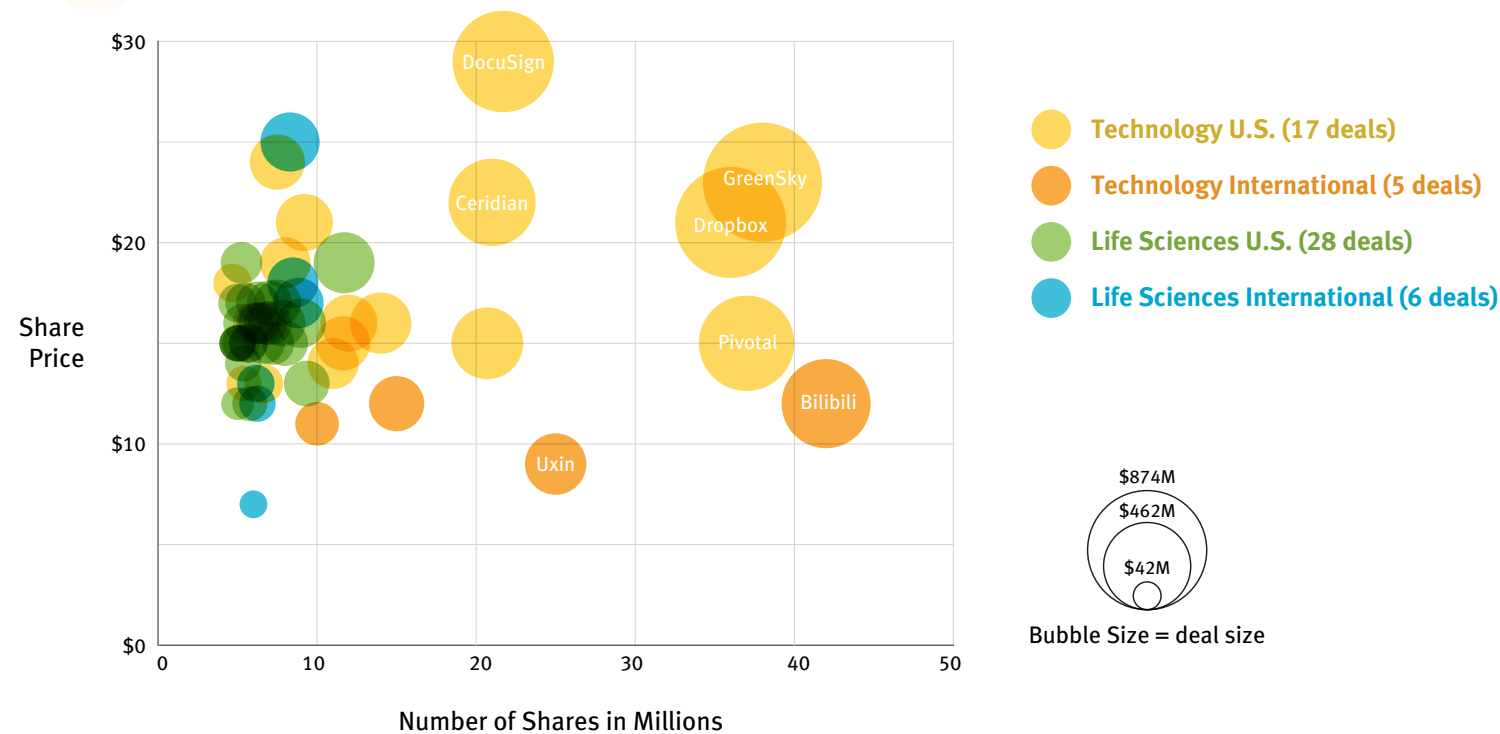
RED HERRING DEAL COMPARISON (MIDPOINT PRICE): 2018, SECOND HALF



Size of Offerings, Final IPO Price

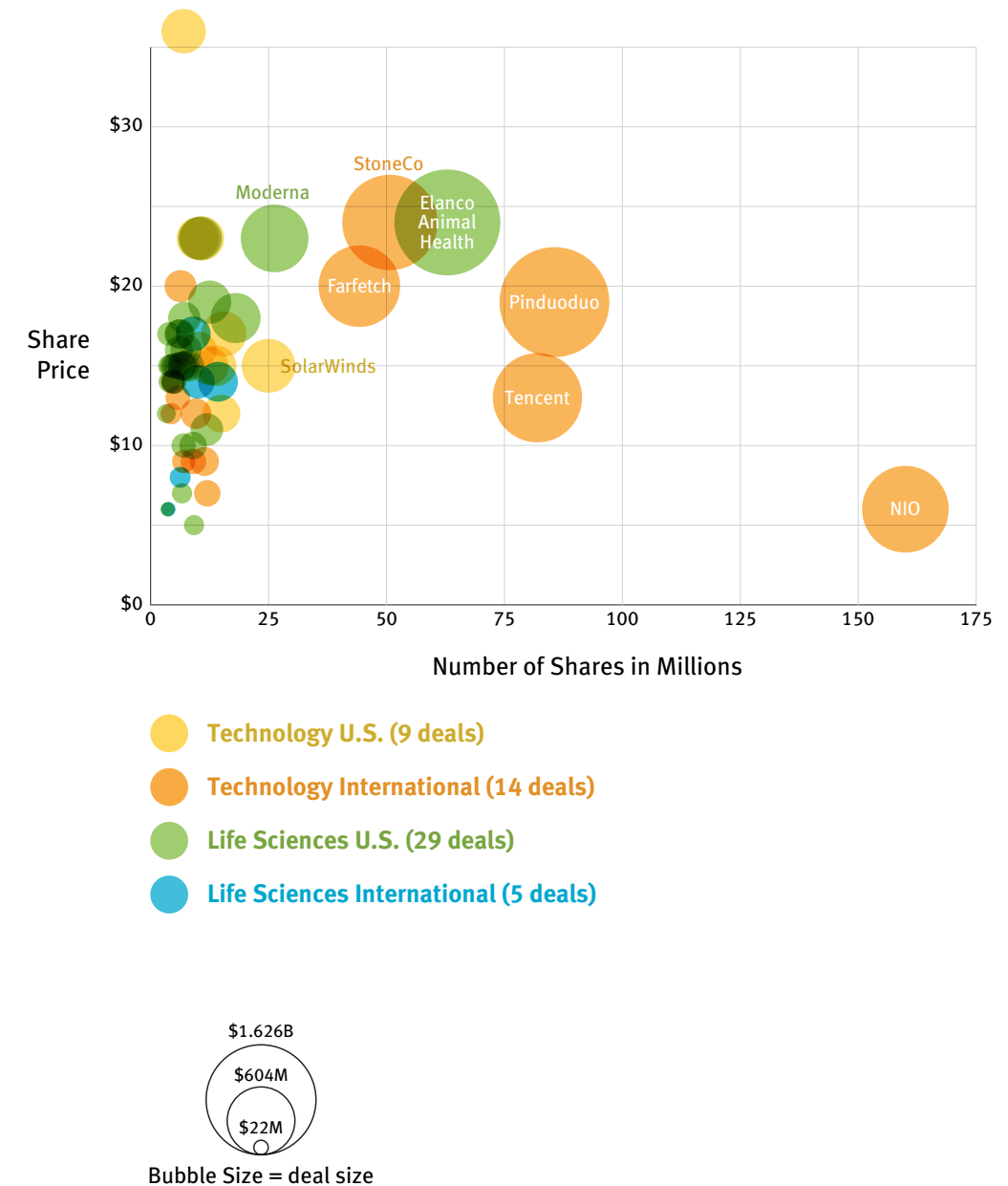
The following scatter graphs plot technology and life sciences IPOs completed during the first and second half of 2018 in terms of the initial offering price per share and number of shares offered based on actual pricing of the offering.

IPO DEAL COMPARISON 2018, FIRST HALF



This graph excludes Spotify, as unlike a traditional offering, the selling stockholders were not committed to the sale of a fixed number, or any, shares and were not given a fixed price at which the company's shares would be purchased. iQIYI as an outlier was also excluded, with a deal size of \$2.3 billion, a share price of \$18.00 and 125 million shares.

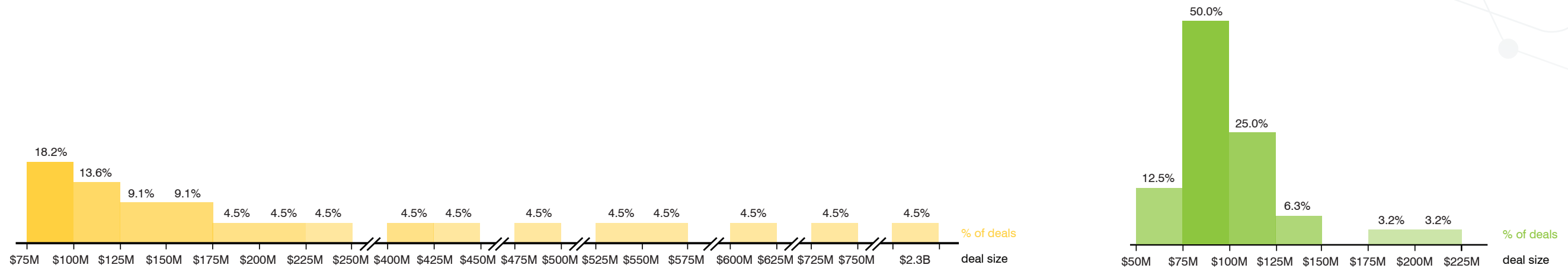
IPO DEAL COMPARISON 2018, SECOND HALF



Aggregate Amount Raised, Red Herring Midpoint

The following graphs provide information about aggregate deal size at the red herring stage in the first and second half of 2018.

DISTRIBUTION OF DEAL SIZE (RED HERRING MIDPOINT): 2018, FIRST HALF

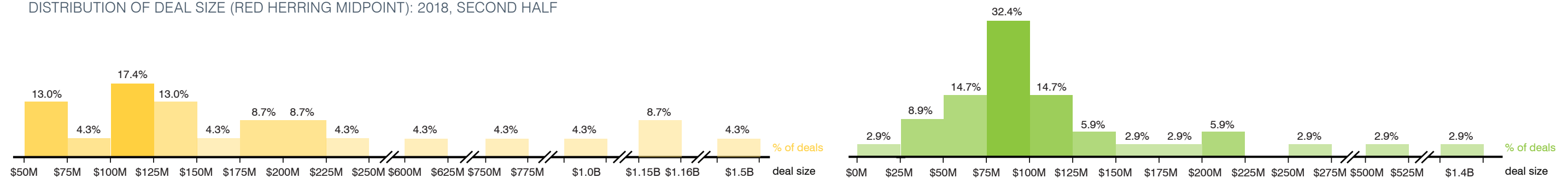


Technology Deal Size Distribution

Life Sciences Deal Size Distribution

These graphs exclude Spotify and ASLAN Pharmaceuticals, as neither offering had a price range.

DISTRIBUTION OF DEAL SIZE (RED HERRING MIDPOINT): 2018, SECOND HALF



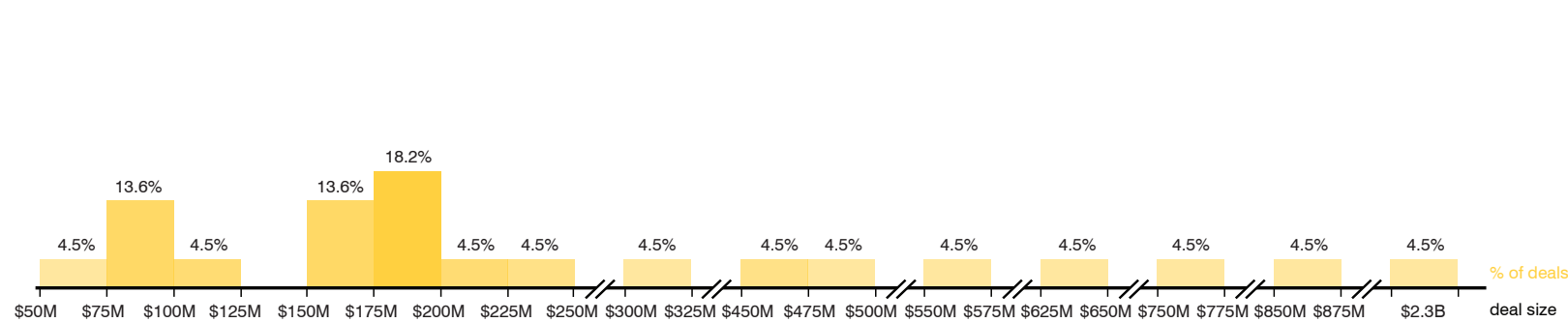
Technology Deal Size Distribution

Life Sciences Deal Size Distribution

Aggregate Amount Raised, Final IPO Price

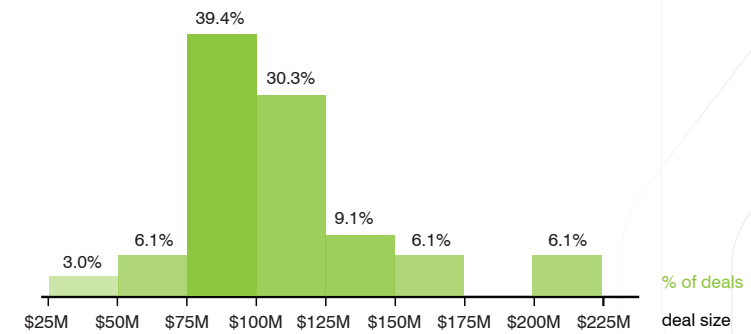
The following graphs provide information about aggregate deal size based on the actual pricing of the offering in the first and second half of 2018.

DISTRIBUTION OF DEAL SIZE (FINAL IPO PRICE): 2018, FIRST HALF



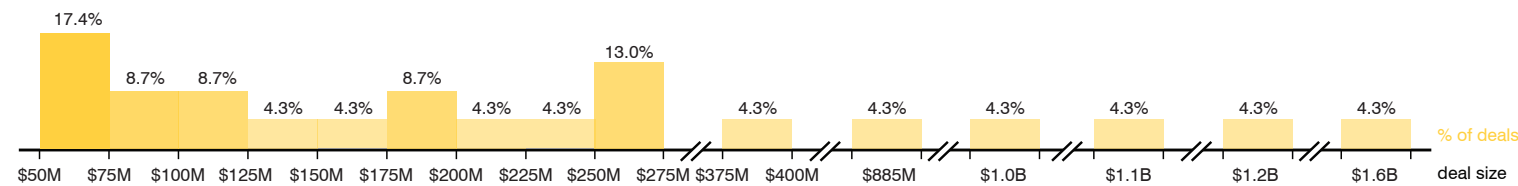
Technology Deal Size Distribution

This graph excludes Spotify, as unlike a traditional offering, the selling stockholders were not committed to the sale of a fixed number, or any, shares and were not given a fixed price at which the company's shares would be purchased.

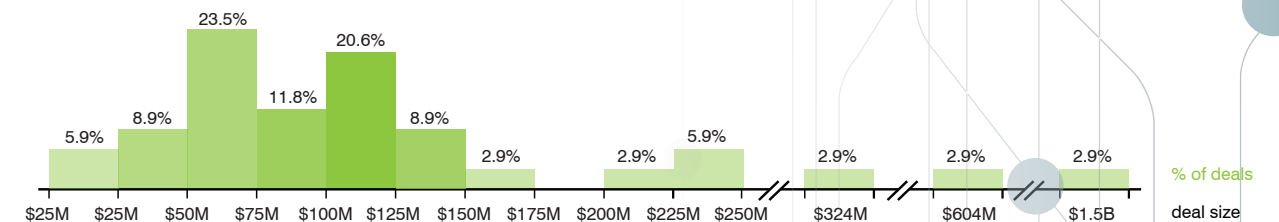


Life Sciences Deal Size Distribution

DISTRIBUTION OF DEAL SIZE (FINAL IPO PRICE): 2018, SECOND HALF



Technology Deal Size Distribution

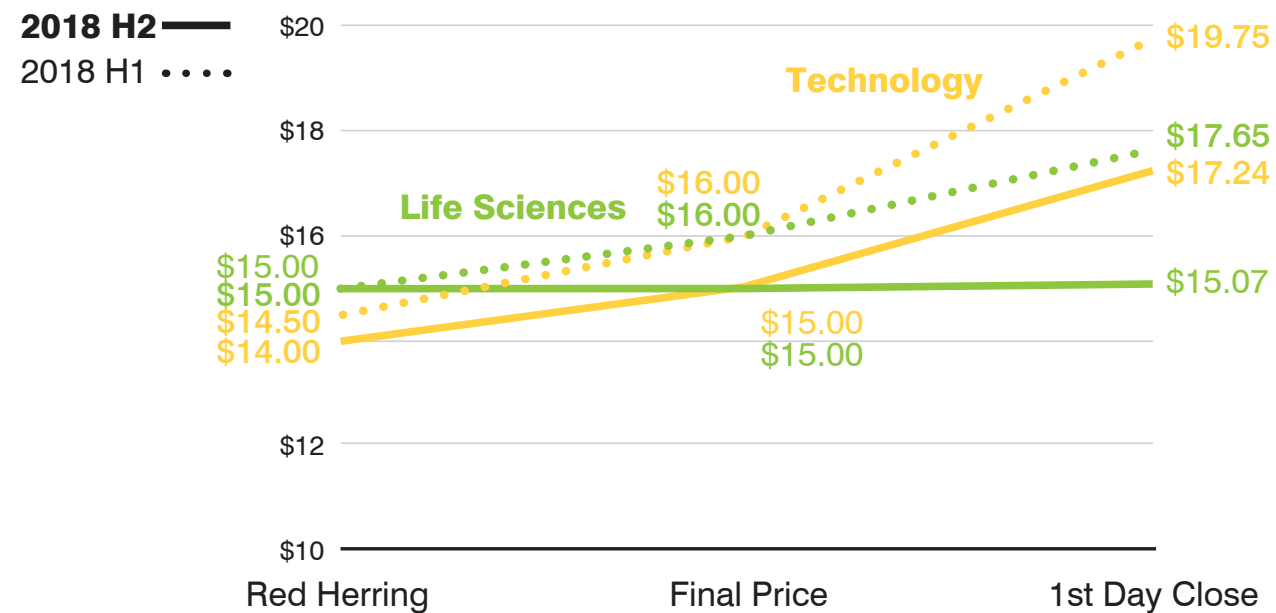


Life Sciences Deal Size Distribution

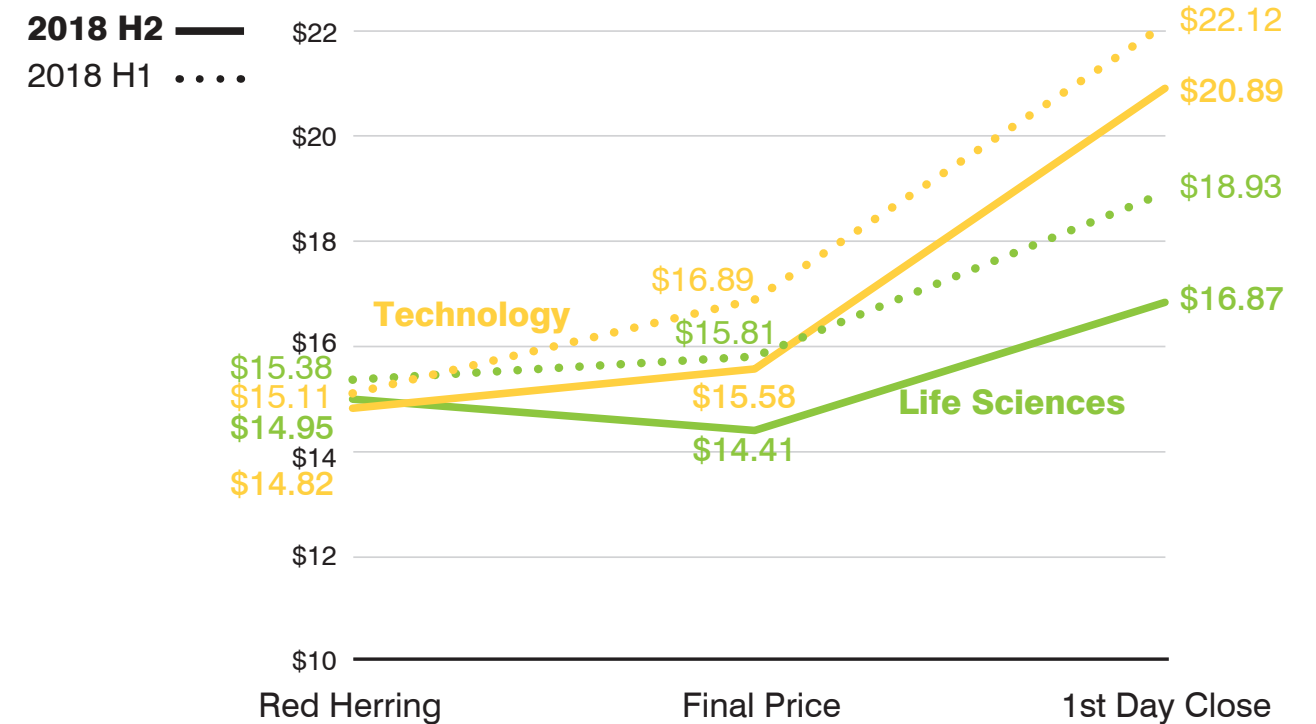
Price Changes Between the Red Herring and Initial Offering Price

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 equal parts science and art. These graphs 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 closing price on the first day of trading, for the first and second half of 2018.

MEDIAN PRICES FOR TECHNOLOGY & LIFE SCIENCES IPO DEALS



AVERAGE PRICES FOR TECHNOLOGY & LIFE SCIENCES IPO DEALS

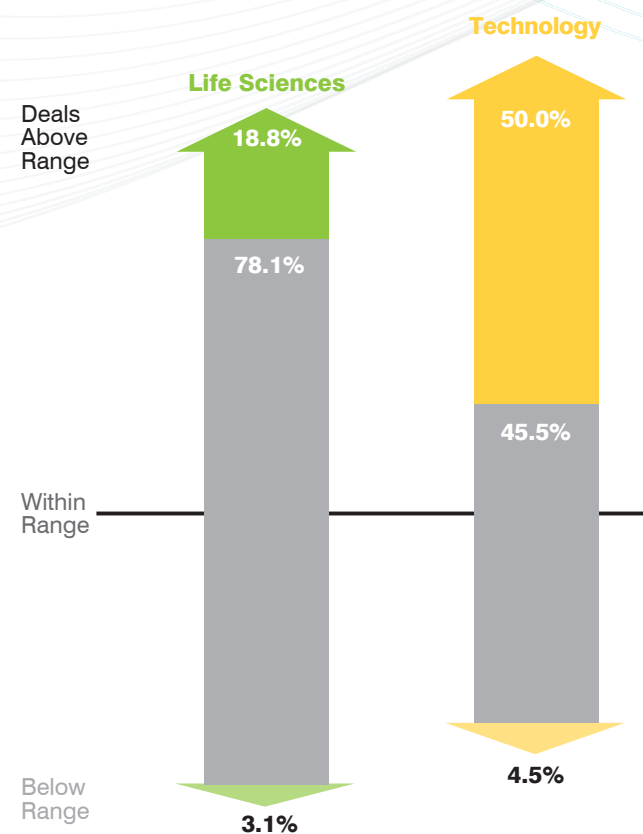


These graphs exclude Spotify and ASLAN Pharmaceuticals, as neither offering had a price range.

Price Changes (continued)

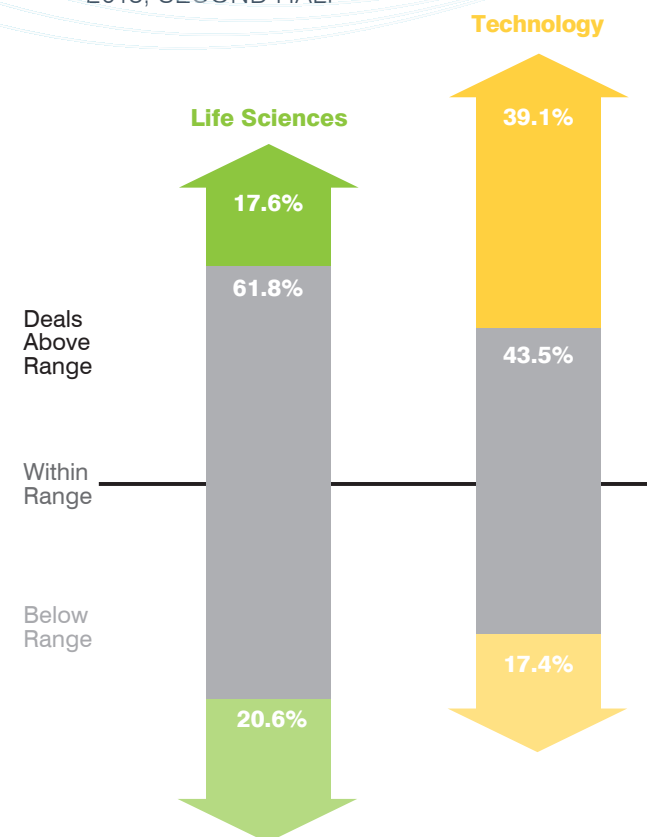
The two graphs on the left show the percentage of technology and life sciences IPOs with a final price that falls above, within or below the red herring range in the first and second half of 2018. The two graphs on the right show the percentage of technology and life sciences deals that closed up, down or flat on their first day of trading in the first and second half of 2018.

RELATION OF FINAL IPO PRICE TO ORIGINAL RED HERRING RANGE (% OF DEALS) 2018, FIRST HALF

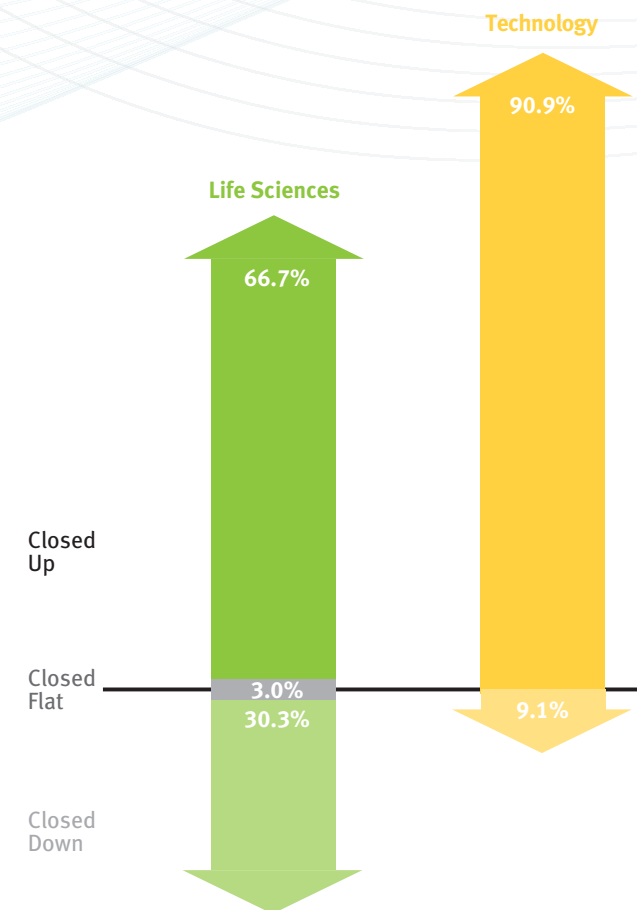


This graph excludes Spotify and ASLAN Pharmaceuticals, as neither offering had a price range.

RELATION OF FINAL IPO PRICE TO ORIGINAL RED HERRING RANGE (% OF DEALS) 2018, SECOND HALF

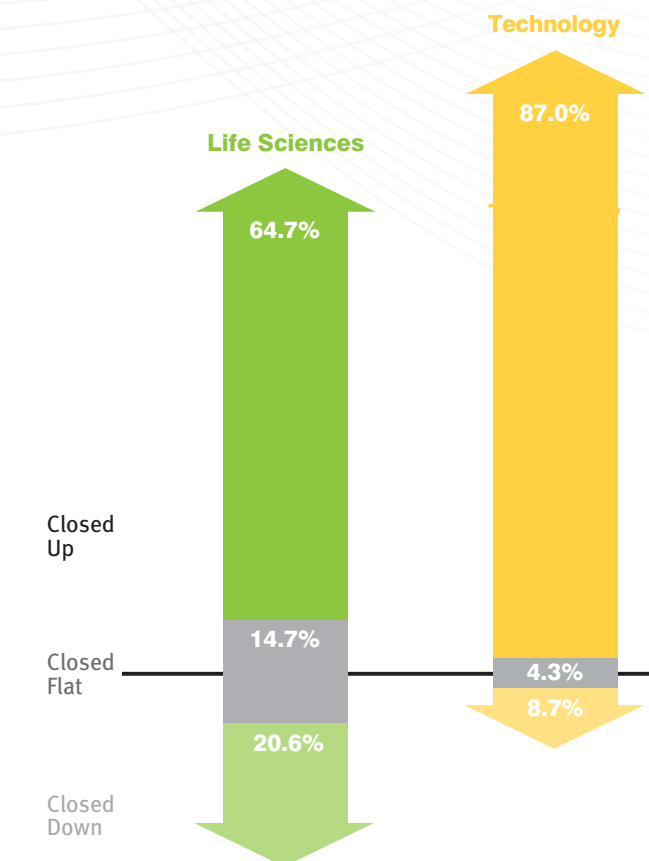


RELATION OF PRICE AT 1ST DAY CLOSE TO FINAL IPO PRICE (% OF DEALS) 2018, FIRST HALF



This graph excludes Spotify, as unlike a traditional offering, the selling stockholders were not committed to the sale of a fixed number, or any, shares and were not given a fixed price at which the company's shares would be purchased.

RELATION OF PRICE AT 1ST DAY CLOSE TO FINAL IPO PRICE (% OF DEALS) 2018, SECOND HALF



Geographical Distribution of Technology Company IPOs



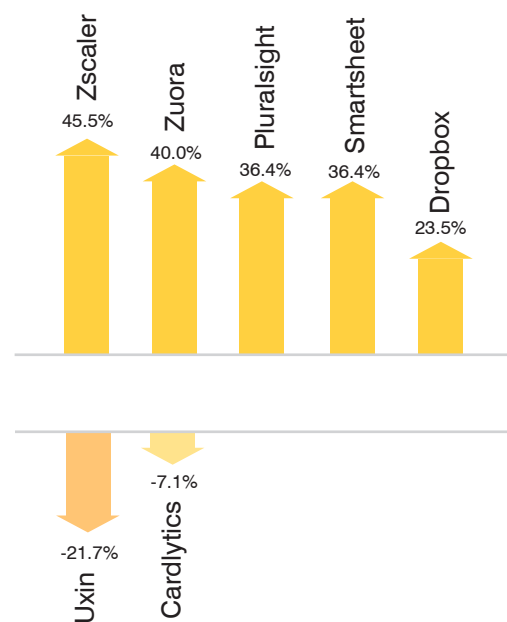
Price Changes (continued)

The following graphs show the technology company IPOs with the largest percentage gain and loss from the red herring midpoint to the actual initial public offering price and from the initial public offering price to the first day of trading for IPOs completed in the first and second half of 2018.

Technology—U.S.

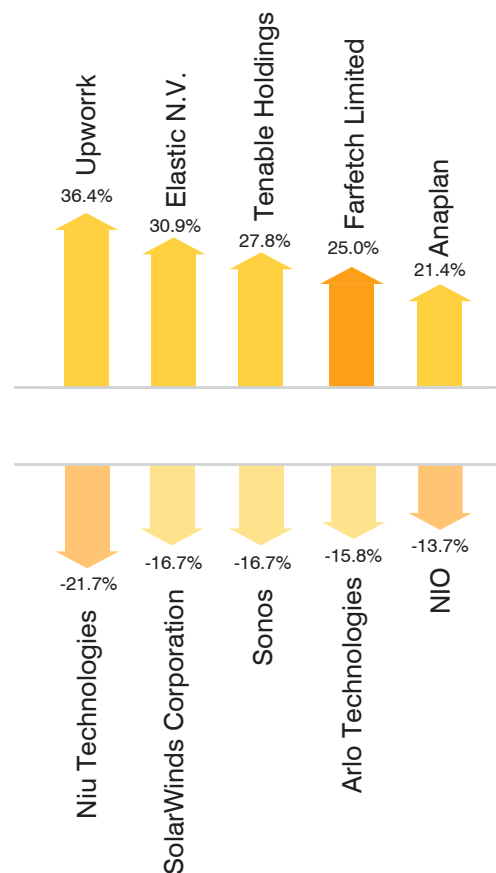
Technology—International

BIGGEST MOVERS—RED HERRING PRICE TO FINAL IPO PRICE 2018, FIRST HALF

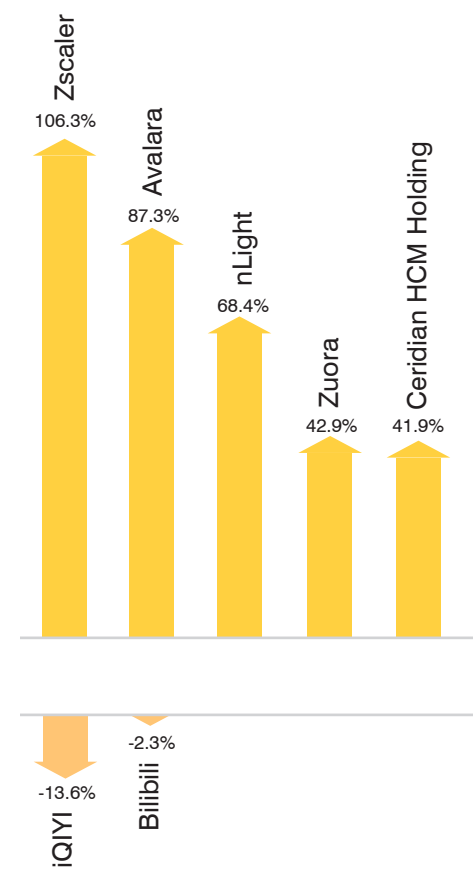


This graph excludes Spotify, as the offering did not have a price range.

BIGGEST MOVERS—RED HERRING PRICE TO FINAL IPO PRICE 2018 SECOND HALF

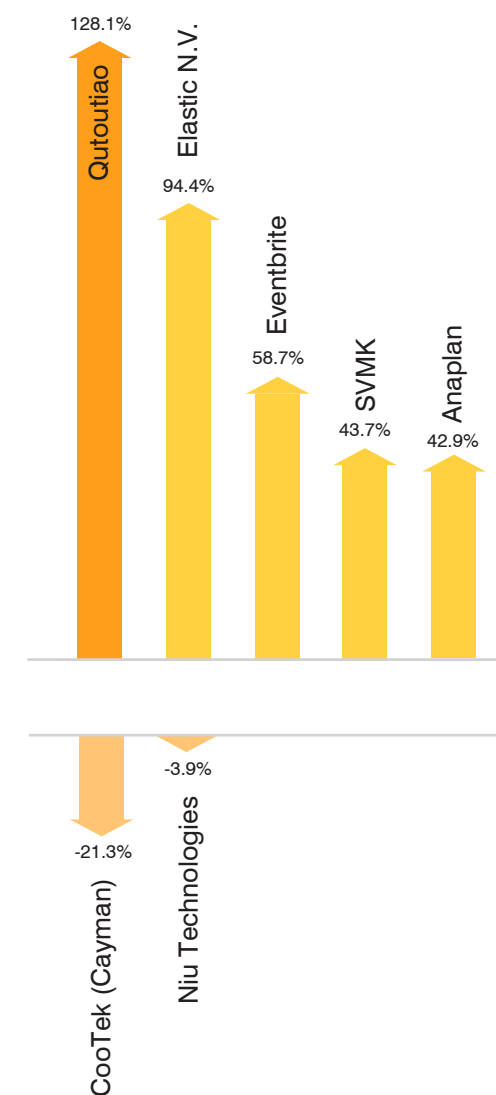


BIGGEST MOVERS—IPO PRICE TO PRICE AT 1ST DAY CLOSE 2018, FIRST HALF

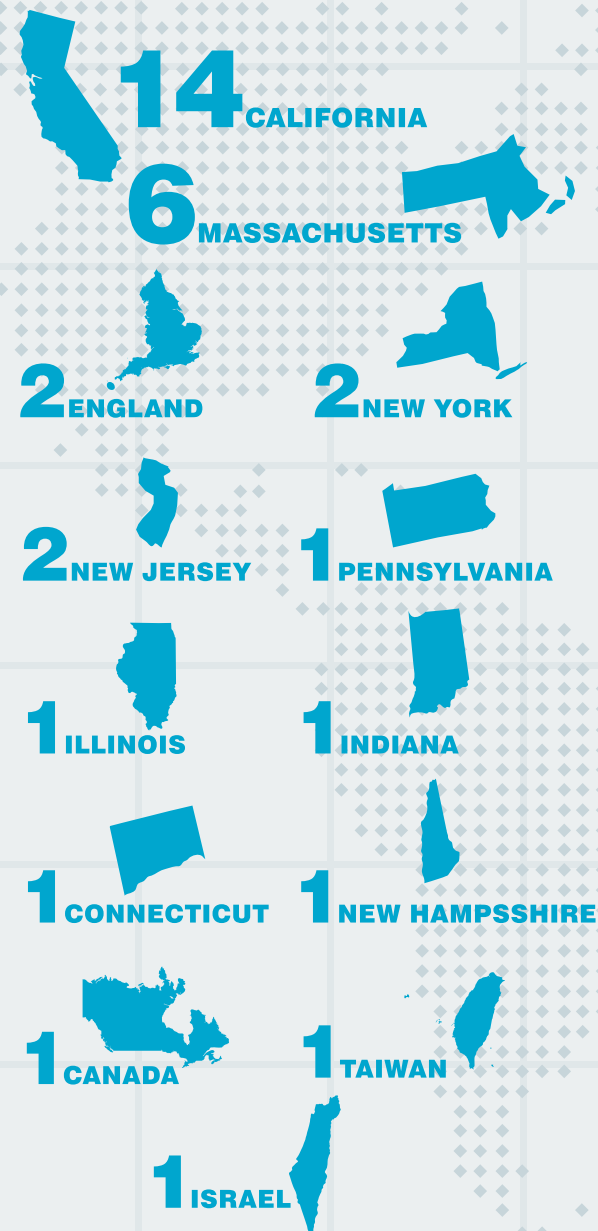


This graph excludes Spotify, as unlike a traditional offering, the selling stockholders were not committed to the sale of a fixed number, or any, shares and were not given a fixed price at which the company's shares would be purchased.

BIGGEST MOVERS—IPO PRICE TO PRICE AT 1ST DAY CLOSE 2018, SECOND HALF



Geographical Distribution of Life Sciences Company IPOs



Price Changes (continued)

The following graphs show the life sciences company IPOs with the largest percentage gain and loss from the red herring midpoint to the actual initial public offering price and from the initial public offering price to the first day of trading for IPOs completed in the first and second half of 2018.

BIGGEST MOVERS – RED HERRING PRICE TO FINAL IPO PRICE 2018, FIRST HALF



BIGGEST MOVERS – RED HERRING PRICE TO FINAL IPO PRICE 2018, SECOND HALF



This graph excludes ASLAN Pharmaceuticals, as the offering did not have a price range.

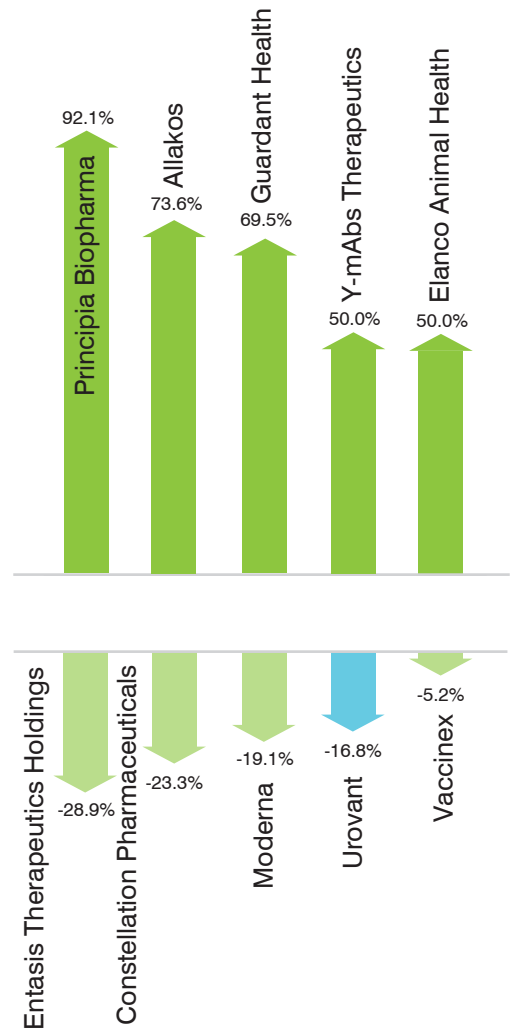
BIGGEST MOVERS – IPO PRICE TO PRICE AT 1ST DAY CLOSE 2018, FIRST HALF



Life Sciences—U.S.

Life Sciences—International

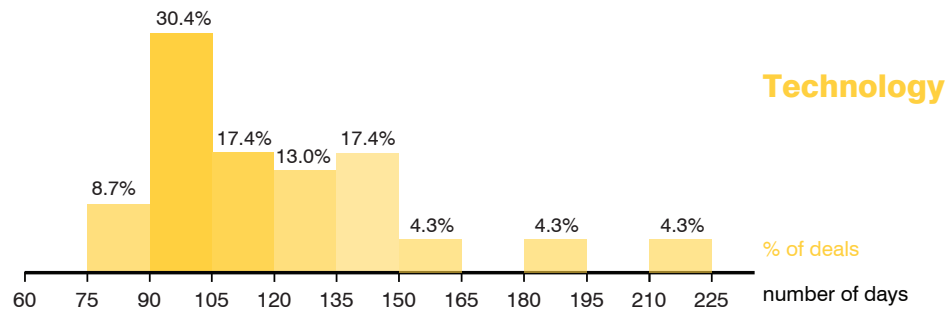
BIGGEST MOVERS – IPO PRICE TO PRICE AT 1ST DAY CLOSE 2018, SECOND HALF



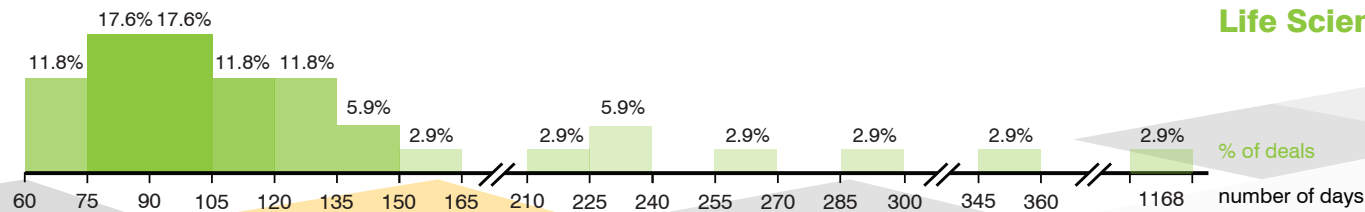
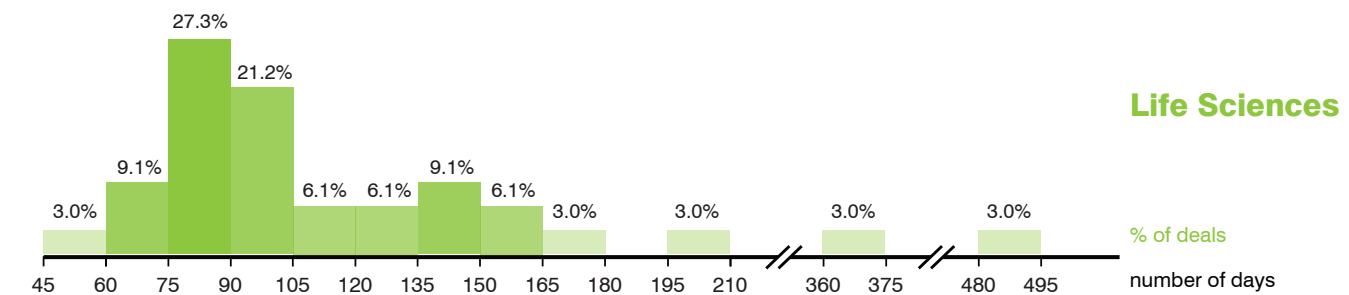
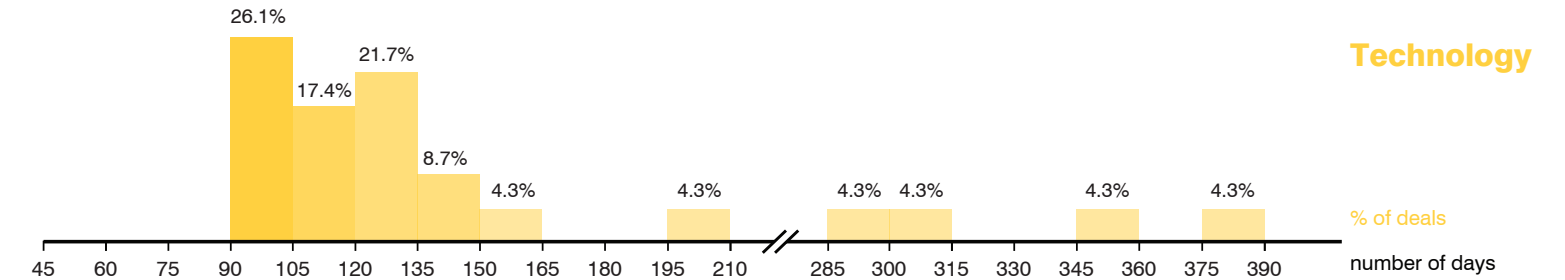
Days on File

These graphs display the percentage of deals that priced within each 15-day period from the initial confidential submission date or, rarely, initial public submission.

DISTRIBUTION OF DAYS BETWEEN INITIAL SUBMISSION AND FINAL PRICING 2018, SECOND HALF



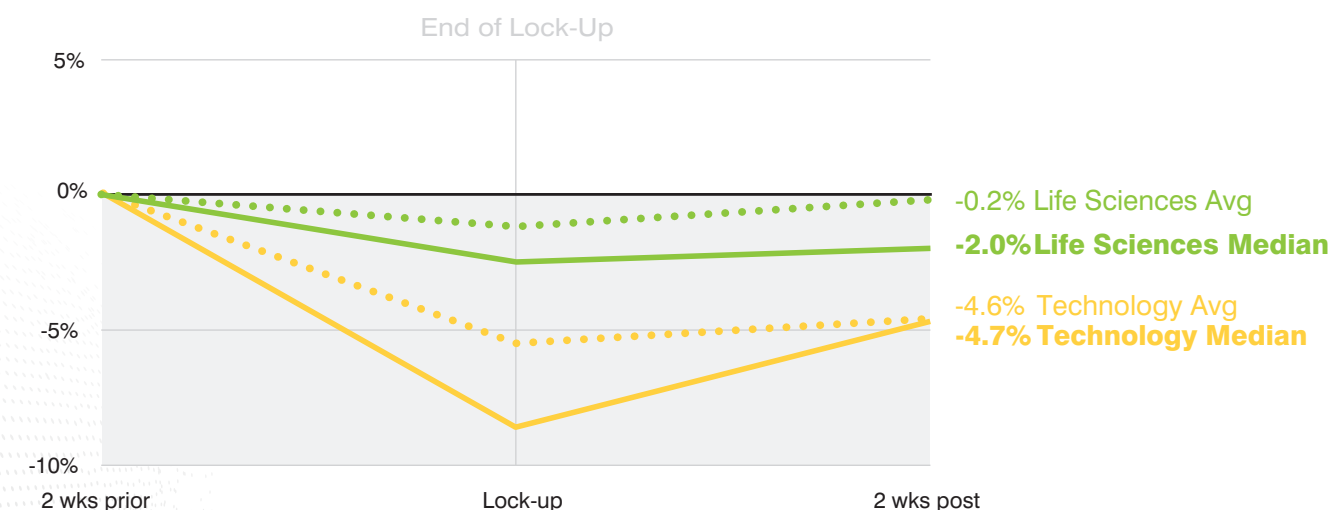
DISTRIBUTION OF DAYS BETWEEN INITIAL SUBMISSION AND FINAL PRICING 2018, FIRST HALF



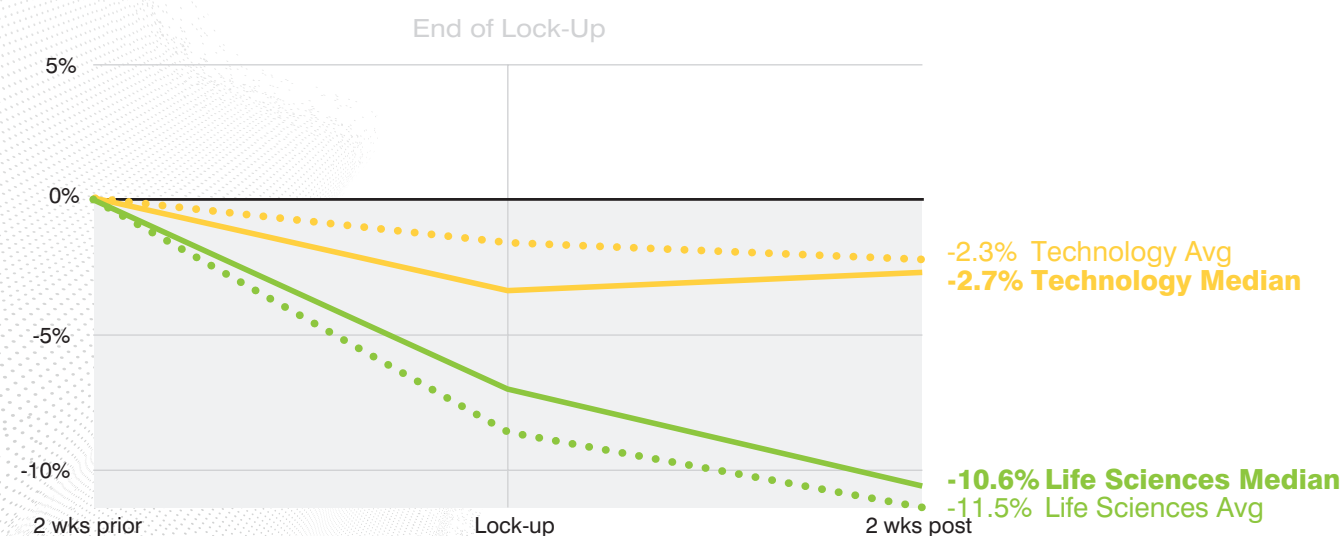
Price Changes Around the Expiration of the Lock-Up

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 on this page 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 and second half of 2018. Those companies completing IPOs in the second half of 2017 and a follow-on offering within 180 days are excluded from the top graph. Those companies completing IPOs in the first half of 2018 and a follow-on offering within 180 days are excluded from the bottom graph.

PERCENT CHANGE OF SHARE PRICES SURROUNDING END OF LOCK-UP PERIOD 2018, FIRST HALF



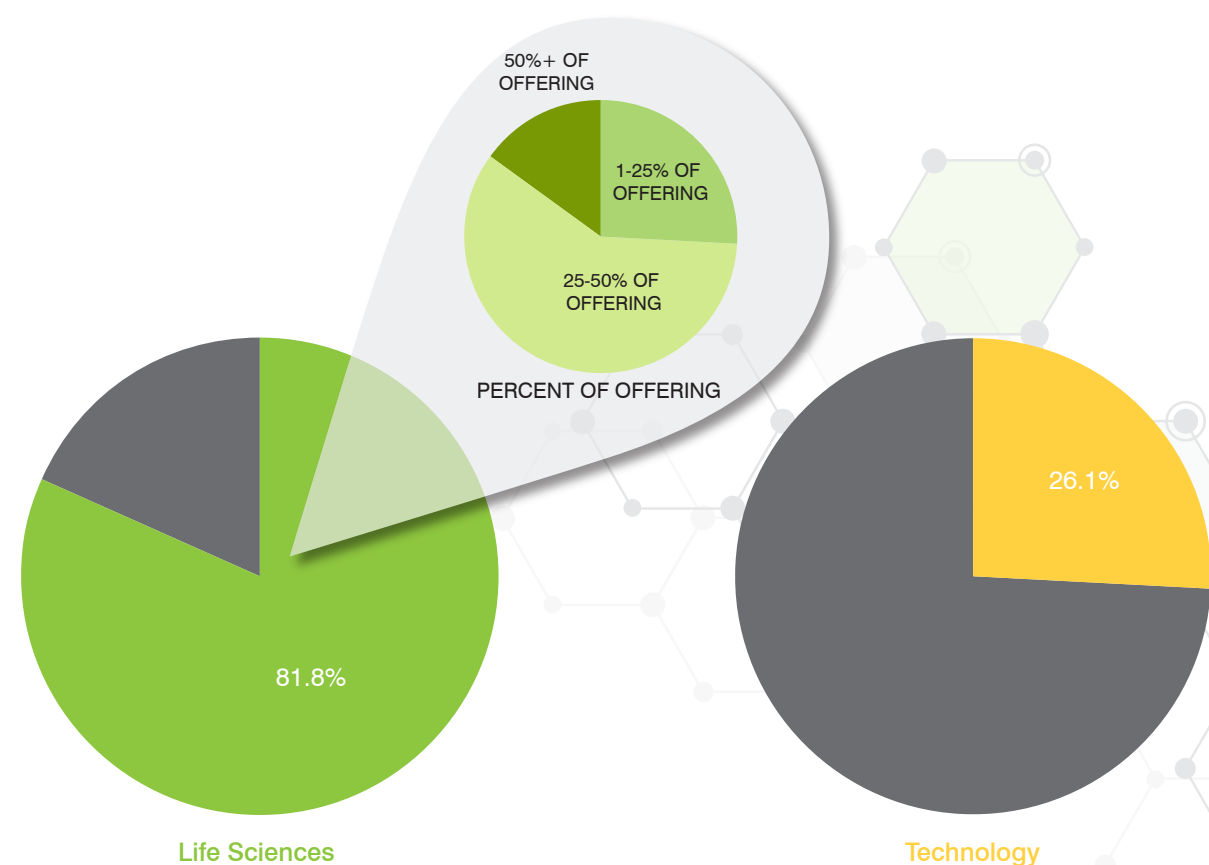
PERCENT CHANGE OF SHARE PRICES SURROUNDING END OF LOCK-UP PERIOD 2018, SECOND HALF



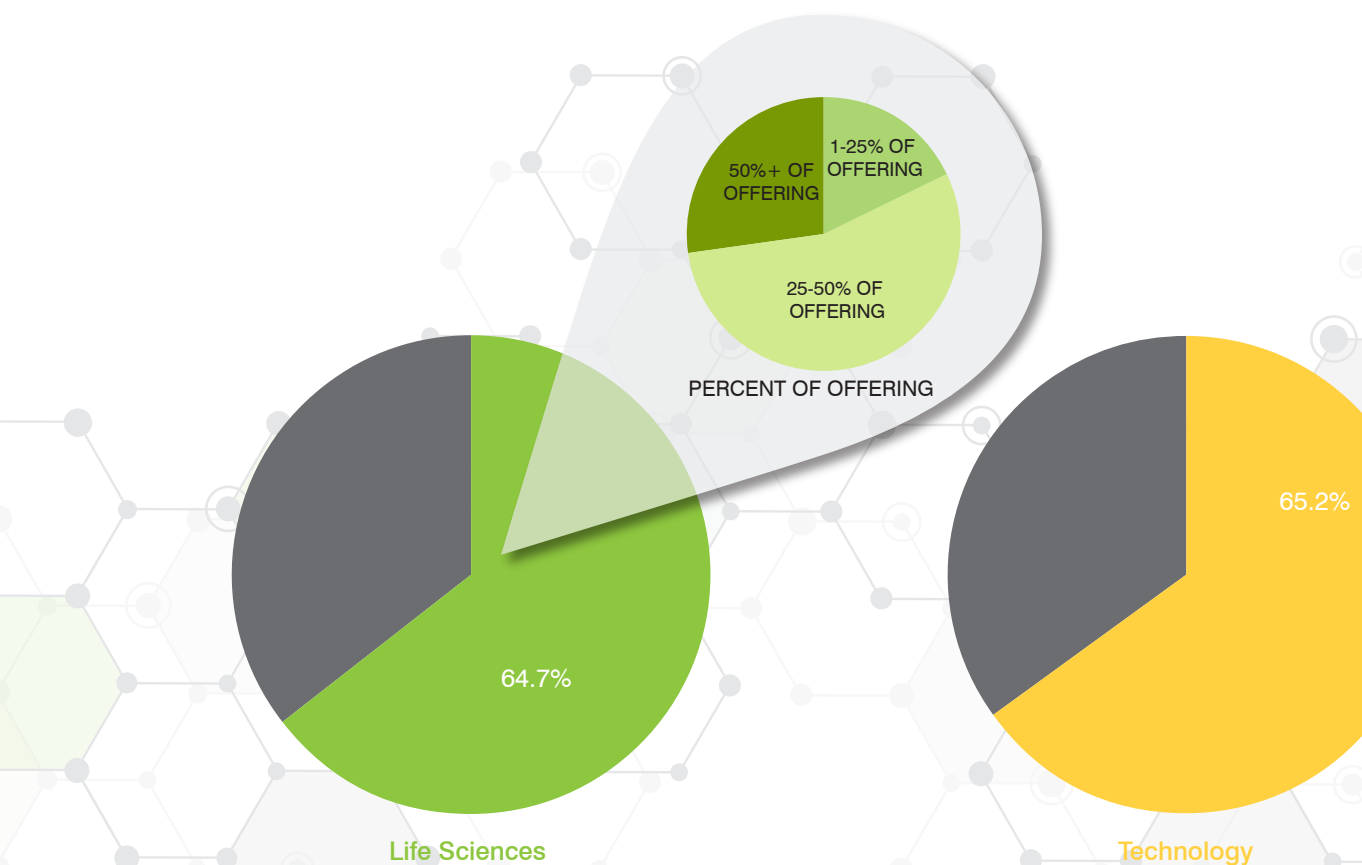
Insider Participation

These charts show the percentage of life sciences and technology IPOs in which the final prospectus indicated that specified “insiders” had expressed an interest in purchasing shares in the offering or in a concurrent private placement. 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 or in a concurrent private placement. 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 2018, FIRST HALF



PERCENTAGE OF DEALS WITH INSIDER PARTICIPATION AND PERCENTAGE OF OFFERING MADE AVAILABLE TO INSIDERS 2018, SECOND HALF



Technology Offerings

H1 2018^{1, 2}

COMPANY NAME/TICKER SYMBOL	RED HERRING MIDPOINT	PRICED	FINAL SHARES ³	FINAL PRICING	FINAL DEAL SIZE
Huami Corporation NYSE:HMI	\$11.00	2/8/18	10,000,000	\$11.00	\$110,000,000
Cardlytics, Inc. NasdaqGM:CDLX	\$14.00	2/9/18	5,400,000	\$13.00	\$70,200,000
Zscaler, Inc. NasdaqGS:ZS	\$11.00	3/16/18	12,000,000	\$16.00	\$192,000,000
Dropbox, Inc. NasdaqGS:DBX	\$17.00	3/23/18	36,000,000	\$21.00	\$756,000,000
Bilibili Inc. NasdaqGS:BILI	\$11.50	3/28/18	42,000,000	\$11.50	\$483,000,000
iQIYI, Inc. NasdaqGS:IQ	\$18.00	3/29/18	125,000,000	\$18.00	\$2,250,000,000
Spotify Technology NYSE:SPOT	NA	4/3/18	NA	NA	NA
Zuora, Inc. NYSE:ZUO	\$10.00	4/12/18	11,000,000	\$14.00	\$154,000,000
Pivotal Software, Inc. NYSE:PVTL	\$15.00	4/20/18	37,000,000	\$15.00	\$555,000,000
nLIGHT, Inc NYSE:CDAY	\$14.00	4/26/18	6,000,000	\$16.00	\$96,000,000
Ceridian HCM Holding Inc. NYSE:CDAY	\$20.00	4/26/18	21,000,000	\$22.00	\$462,000,000
DocuSign, Inc. NasdaqGS:DOCU	\$25.00	4/27/18	21,700,000	\$29.00	\$629,300,000
Smartsheet Inc. NYSE:SMAR	\$11.00	4/27/18	11,633,920	\$15.00	\$174,508,800
Carbon Black, Inc. NasdaqGS:CBLK	\$16.00	5/4/18	8,000,000	\$19.00	\$152,000,000
HUYA Inc. NYSE:HUYA	\$11.00	5/11/18	15,000,000	\$12.00	\$180,000,000

COMPANY NAME/TICKER SYMBOL	RED HERRING MIDPOINT	PRICED	FINAL SHARES ³	FINAL PRICING	FINAL DEAL SIZE
Pluralsight, Inc. NasdaqGS:PS	\$11.00	5/17/18	20,700,000	\$15.00	\$310,500,000
EVO Payments, Inc. NasdaqGM:EVOP	\$15.00	5/23/18	14,000,000	\$16.00	\$224,000,000
GreenSky, Inc. NasdaqGS:GSKY	\$22.00	5/24/18	38,000,000	\$23.00	\$874,000,000
Avalara, Inc. NYSE:AVLR	\$20.00	6/15/18	7,500,000	\$24.00	\$180,000,000
i3 Verticals, Inc. NasdaqGS:IIIV	\$12.00	6/21/18	6,650,000	\$13.00	\$86,450,000
Uxin Ltd NasdaqGS:UXIN	\$11.50	6/27/18	25,000,000	\$9.00	\$225,000,000
EverQuote, Inc. NasdaqGM:EVER	\$16.00	6/28/18	4,687,500	\$18.00	\$84,375,000
Domo, Inc. NasdaqGM:DOMO	\$20.50	6/29/18	9,200,000	\$21.00	\$193,200,000

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

² Rows shaded in orange represent International Technology IPOs.

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

Technology Offerings

H2 2018^{1, 2}

COMPANY NAME/TICKER SYMBOL	RED HERRING MIDPOINT	PRICED	FINAL SHARES ³	FINAL PRICING	FINAL DEAL SIZE
Aurora Mobile Limited NasdaqGM:JG	\$9.50	7/26/18	9,060,000	\$8.50	\$77,010,000
Pinduoduo Inc. NasdaqGS:PDD	\$17.50	7/26/18	85,600,000	\$19.00	\$1,626,400,000
Tenable Holdings, Inc. NasdaqGS:TENB	\$18.00	7/26/18	10,900,000	\$23.00	\$250,700,000
Endava plc NYSE:DAVA	\$18.00	7/27/18	6,340,000	\$20.00	\$126,800,000
Opera Limited NasdaqGS:OPRA	\$11.00	7/27/18	9,600,000	\$12.00	\$115,200,000
Sonos, Inc. NasdaqGS:SONO	\$18.00	8/2/18	13,888,888	\$15.00	\$208,333,320
Arlo Technologies, Inc. NYSE:ARLO	\$19.00	8/3/18	10,215,000	\$16.00	\$163,440,000
NIO Inc. NYSE:NIO	\$7.25	9/12/18	160,000,000	\$6.26	\$1,001,600,000
Qutoutiao Inc. NasdaqGS:QTT	\$8.00	9/14/18	12,000,000	\$7.00	\$84,000,000
Eventbrite, Inc. NYSE:EB	\$20.00	9/20/18	10,000,000	\$23.00	\$230,000,000
Farfetch Limited NYSE:FTCH	\$16.00	9/21/18	44,243,749	\$20.00	\$884,874,980
Viomi Technology Co., Ltd NasdaqGS:VIOT	\$10.00	9/25/18	11,400,000	\$9.00	\$102,600,000
SVMK Inc. NasdaqGS:SVMK	\$10.00	9/26/18	15,000,000	\$12.00	\$180,000,000
LAIX Inc. NYSE:LAIX	\$12.50	9/27/18	5,750,000	\$12.50	\$71,875,000
CooTek (Cayman) Inc. NYSE:CTK	\$13.00	9/28/18	4,350,000	\$12.00	\$52,200,000

COMPANY NAME/TICKER SYMBOL	RED HERRING MIDPOINT	PRICED	FINAL SHARES ³	FINAL PRICING	FINAL DEAL SIZE
Upwork Inc. NasdaqGS:UPWK	\$11.00	10/3/18	12,476,693	\$15.00	\$187,150,395
Elastic N.V. NYSE:ESTC	\$27.50	10/5/18	7,000,000	\$36.00	\$252,000,000
Anaplan, Inc. NYSE:PLAN	\$14.00	10/12/18	15,500,000	\$17.00	\$263,500,000
Niu Technologies NasdaqGM:NIU	\$11.50	10/19/18	7,000,000	\$9.00	\$63,000,000
SolarWinds Corporation NYSE:SWI	\$18.00	10/19/18	25,000,000	\$15.00	\$375,000,000
StoneCo Ltd. NasdaqGS:STNE	\$22.00	10/25/18	50,724,638	\$24.00	\$1,217,391,312
MOGU Inc. NYSE:MOGU	\$15.00	12/6/18	4,750,000	\$14.00	\$66,500,000
Tencent Music Entertainment Group NYSE:TME	\$14.00	12/12/18	82,000,000	\$13.00	\$1,066,000,000

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

² Rows shaded in orange represent International Technology IPOs.

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

Life Sciences Offerings

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COMPANY NAME / TICKER SYMBOL	RED HERRING MIDPOINT	PRICED	FINAL SHARES ³	FINAL PRICING	FINAL DEAL SIZE
Menlo Therapeutics Inc. NasdaqGS:MNLO	\$15.00	1/25/18	7,000,000	\$17.00	\$119,000,000
ARMO BioSciences, Inc. NasdaqGS:ARMO	\$15.00	1/26/18	7,529,412	\$17.00	\$128,000,004
resTORbio, Inc. NasdaqGS:TORC	\$15.00	1/26/18	5,666,667	\$15.00	\$85,000,005
Solid Biosciences Inc. NasdaqGS:SLDB	\$17.00	1/26/18	7,812,500	\$16.00	\$125,000,000
Sol-Gel Technologies Ltd. NasdaqGM:SLGL	\$12.00	2/1/18	6,250,000	\$12.00	\$75,000,000
Evolus, Inc. NasdaqGM:EOLS	\$13.00	2/8/18	5,000,000	\$12.00	\$60,000,000
Arcus Biosciences, Inc. NYSE:RCUS	\$14.00	3/15/18	8,000,000	\$15.00	\$120,000,000
Homology Medicines, Inc. NasdaqGS:FIXX	\$15.00	3/28/18	9,000,000	\$16.00	\$144,000,000
Unum Therapeutics Inc. NasdaqGS:UMRX	\$13.00	3/29/18	5,770,000	\$12.00	\$69,240,000
MorphoSys AG NasdaqGS:MOR	\$24.12	4/19/18	8,300,000	\$25.04	\$207,832,000
Surface Oncology, Inc. NasdaqGM:SURF	\$14.00	4/19/18	7,200,000	\$15.00	\$108,000,000
Unity Biotechnology, Inc. NasdaqGS:UBX	\$17.00	5/3/18	5,000,000	\$17.00	\$85,000,000
Inspire Medical Systems, Inc. NYSE:INSP	\$15.00	5/3/18	6,750,000	\$16.00	\$108,000,000
ASLAN Pharmaceuticals Limited NasdaqGM:ASLN	NA	5/4/18	6,000,000	\$7.03	\$42,180,000
Evelo Biosciences, Inc. NasdaqGS:EVLO	\$16.00	5/9/18	5,312,500	\$16.00	\$85,000,000
Scholar Rock Holding Corporation NasdaqGS:SRRK	\$14.00	5/24/18	5,360,000	\$14.00	\$75,040,000

COMPANY NAME / TICKER SYMBOL	RED HERRING MIDPOINT	PRICED	FINAL SHARES ³	FINAL PRICING	FINAL DEAL SIZE
Kiniksa Pharmaceuticals, Ltd. NasdaqGS:KNSA	\$18.00	5/24/18	8,477,777	\$18.00	\$152,599,986
Iteum Therapeutics plc NasdaqGM:ITRM	\$15.00	5/25/18	6,150,000	\$13.00	\$79,950,000
MeiraGTx Holdings plc NasdaqGS:MGTX	\$15.00	6/8/18	5,000,000	\$15.00	\$75,000,000
Verrica Pharmaceuticals Inc. NasdaqGM:VRCA	\$15.00	6/15/18	5,000,000	\$15.00	\$75,000,000
Eidos Therapeutics, Inc. NasdaqGS:EIDX	\$16.00	6/20/18	6,250,000	\$17.00	\$106,250,000
AVROBIO, Inc. NASDAQ: AVRO	\$17.00	6/21/18	5,247,958	\$19.00	\$99,711,202
Xeris Pharmaceuticals, Inc. NasdaqGS:XERS	\$15.00	6/21/18	5,700,000	\$15.00	\$85,500,000
Aptinyx Inc. NasdaqGS:APTX	\$15.00	6/21/18	6,399,999	\$16.00	\$102,399,984
Magenta Therapeutics, Inc. NasdaqGM:MGTA	\$15.00	6/21/18	6,666,667	\$15.00	\$100,000,005
Kezar Life Sciences, Inc. NasdaqGS:KZR	\$15.00	6/21/18	5,000,000	\$15.00	\$75,000,000
Autolus Therapeutics plc NasdaqGS:AUTL	\$16.00	6/22/18	8,823,530	\$17.00	\$150,000,010
electroCore, Inc. NasdaqGS:ECOR	\$15.00	6/22/18	5,200,000	\$15.00	\$78,000,000
Neon Therapeutics, Inc. NasdaqGS:NTGN	\$16.00	6/27/18	6,250,000	\$16.00	\$100,000,000
Neuronetics, Inc. NasdaqGM:STIM	\$15.00	6/28/18	5,500,000	\$17.00	\$93,500,000
Forty Seven, Inc. NasdaqGS:FTSV	\$15.00	6/28/18	7,035,000	\$16.00	\$112,560,000
Tricida, Inc. NasdaqGS:TCDA	\$17.00	6/28/18	11,700,000	\$19.00	\$222,300,000
Translate Bio, Inc. NasdaqGS:TBIO	\$13.00	6/28/18	9,350,000	\$13.00	\$121,550,000

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

² Rows shaded in blue represent International Life Sciences IPOs.

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

Life Sciences Offerings (continued)

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COMPANY NAME / TICKER SYMBOL	RED HERRING MIDPOINT	PRICED	FINAL SHARES ³	FINAL PRICING	FINAL DEAL SIZE
Crinetics Pharmaceuticals, Inc. NasdaqGS:CRNX	\$16.00	7/18/18	6,000,000	\$17.00	\$102,000,000
Rubius Therapeutics, Inc. NasdaqGS:RUBY	\$21.00	7/18/18	10,483,000	\$23.00	\$241,109,000
Allakos Inc. NasdaqGS:ALLK	\$16.00	7/19/18	7,133,333	\$18.00	\$128,399,994
Constellation Pharmaceuticals, Inc. NasdaqGS:CNST	\$15.00	7/19/18	4,000,000	\$15.00	\$60,000,000
Tilray, Inc. NasdaqGS:TLRY	\$15.00	7/19/18	9,000,000	\$17.00	\$153,000,000
Replimune Group, Inc. NasdaqGS:REPL	\$15.00	7/20/18	6,700,000	\$15.00	\$100,500,000
Aquestive Therapeutics, Inc. NasdaqGM:AQST	\$15.00	7/25/18	4,500,000	\$15.00	\$67,500,000
Vaccinex, Inc. NasdaqGM:VCNX	\$13.50	8/9/18	3,333,334	\$12.00	\$40,000,008
Principia Biopharma Inc. NasdaqGS:PRNB	\$16.00	9/14/18	6,250,000	\$17.00	\$106,250,000
Elanco Animal Health Incorporated NYSE:ELAN	\$21.50	9/20/18	62,900,000	\$24.00	\$1,509,600,000
Y-mAbs Therapeutics, Inc. NasdaqGS:YMAB	\$15.00	9/21/18	6,000,000	\$16.00	\$96,000,000
Entasis Therapeutics Holdings Inc. NasdaqGM:ETTX	\$17.00	9/26/18	5,000,000	\$15.00	\$75,000,000
Arvinas Holding Company, LLC NasdaqGS:ARVN	\$15.00	9/27/18	7,500,000	\$16.00	\$120,000,000
Ra Medical Systems, Inc. NYSE:RMED	\$15.00	9/27/18	3,900,000	\$17.00	\$66,300,000
Sutro Biopharma, Inc. NasdaqGM:STRO	\$15.00	9/27/18	5,667,000	\$15.00	\$85,005,000
Urovant Sciences Ltd. NasdaqGS:UROV	\$15.00	9/27/18	10,000,000	\$14.00	\$140,000,000

COMPANY NAME / TICKER SYMBOL	RED HERRING MIDPOINT	PRICED	FINAL SHARES ³	FINAL PRICING	FINAL DEAL SIZE
Gritstone Oncology, Inc. NasdaqGS:GRTS	\$14.00	9/28/18	6,666,667	\$15.00	\$100,000,005
Guardant Health, Inc. NasdaqGS:GH	\$16.00	10/4/18	12,500,000	\$19.00	\$237,500,000
Kodiak Sciences Inc. NasdaqGM:KOD	\$14.00	10/4/18	9,000,000	\$10.00	\$90,000,000
Allogene Therapeutics, Inc. NasdaqGS:ALLO	\$17.00	10/11/18	18,000,000	\$18.00	\$324,000,000
Equillum, Inc. NasdaqGM:EQ	\$15.00	10/12/18	4,670,000	\$14.00	\$65,380,000
SI-BONE, Inc. NasdaqGM:SIBN	\$14.00	10/17/18	7,200,000	\$15.00	\$108,000,000
Osmotica Pharmaceuticals plc NasdaqGS:OSMT	\$15.00	10/18/18	6,650,000	\$7.00	\$46,550,000
PhaseBio Pharmaceuticals, Inc. NasdaqGM:PHAS	\$13.00	10/18/18	9,200,000	\$5.00	\$46,000,000
LogicBio Therapeutics, Inc. NasdaqGM:LOGC	\$13.00	10/19/18	7,000,000	\$10.00	\$70,000,000
Gamida Cell Ltd. NasdaqGM:GMDA	\$14.00	10/26/18	6,250,000	\$8.00	\$50,000,000
Axonics Modulation Technologies, Inc. NasdaqGS:AXNX	\$15.00	10/31/18	8,000,000	\$15.00	\$120,000,000
Orchard Therapeutics plc NasdaqGS:ORTX	\$15.00	10/31/18	14,285,715	\$14.00	\$200,000,010
Twist Bioscience Corporation NasdaqGS:TWST	\$15.00	10/31/18	5,000,000	\$14.00	\$70,000,000
Eton Pharmaceuticals, Inc. NasdaqGM:ETON	\$6.00	11/13/18	3,600,000	\$6.00	\$21,600,000
Vapotherm, Inc. NYSE:VAPO	\$15.00	11/14/18	4,000,000	\$14.00	\$56,000,000
Taiwan Liposome Company, Ltd. NasdaqGM:TLC	\$7.46	11/21/18	3,750,000	\$5.80	\$21,750,000
Moderna, Inc. NasdaqGS:MRNA	\$23.00	12/7/18	26,275,993	\$23.00	\$604,347,839
Synthorx, Inc. NasdaqGS:THOR	\$11.00	12/7/18	11,912,727	\$11.00	\$131,039,997

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² Rows shaded in blue represent International Life Sciences IPOs.

³ Final 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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