

# VALUE FOCUS

# MedTech Industry



## Mid-Year 2017

The first half of 2017 showed renewed promise in the medical technology industry, with a rise in both new funding and exit activity. Investor confidence was reflected in higher trailing and forward multiples. Fundamentals remained strong and continued to show moderate growth through the first half of the year.

IPO and M&A exit activity rose in terms of number and deal value. However, the rise in average deal value outpaced total deal growth. Abbott Laboratories' acquisition of St. Jude Medical represents the largest

deal recorded in the last twelve months, at a total value of \$30.3 billion. Investor uncertainty appeared to have cooled off, as venture capital funding rose 27% during the first half.

Regulatory changes have shown both positive and negative effects. In some areas, uncertainties about the future of the Affordable Care Act and U.S. health-care policy could create substantial and unpredictable changes in the future. Recent legislature and Supreme Court decisions have allowed for greater MedTech

innovation as new players enter the market following looser regulation. The current regulatory environment has allowed for MedTech companies to continue delivering products to the market.



# MedTech Industry Services

Mercer Capital has expertise providing business valuation and financial advisory services to companies in the medical technology industry.

## Industry Segments

- Biotechnology
- Healthcare Technology
- Healthcare Supplies
- Medical Equipment
- Life Science Tools & Services

## Services Provided

- Valuation of medical technology companies
- Transaction advisory for acquisitions and divestitures
- Valuations for purchase accounting and impairment testing
- Fairness and solvency opinions
- Litigation support for economic damages and valuation and shareholder disputes

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# IPO Supply and Demand

This article first appeared on [The Financial Reporting Blog](#) in [June 2016](#).

The stock market rallied in the first five months of the year, with the Dow Jones and S&P 500 reaching record highs and continuing to climb. Nevertheless, IPOs remain scarce compared to prior years. Just **nine** venture-backed technology companies have gone public through May, down from 14 IPOs through the same period in 2016. With the availability of favorable financing options that remain in the private market, the supply and demand balance is changing and companies choosing to go public aren't following the traditional route anymore. Snap's public offering and Spotify's potential IPO rumblings are indicative of these trends.

Between the drought of new investment offerings and increasing support for passive investing that circulated in 2016, investors appear to be desperate to find the next big opportunity. So even though Snap announced that its public offering of Class A shares would be devoid of **voting power**, investors still jumped at the chance to own a portion of the company. Snap's IPO, with its non-voting shares, was twelve times oversubscribed. The demand for new public offerings is there, but the supply side is lacking and this imbalance is tipping power away from investors.

Only **105 companies** went public during 2016, the lowest number since 2009 and 65 fewer than 2015. Total dollar value of public offerings fell to \$18.8 billion from \$30.0 billion the prior year. Despite investor optimism earlier in the year, the IPO environment remains stagnant as we approach the halfway mark of 2017. Many companies are realizing they just don't need an IPO. Opportunities for M&A exits still exist, public company oversight is arguably onerous, and alternative sources of funding that are more favorable to the company – and its founders – are becoming increasingly popular.

So when companies actually do decide to go public, they are finding ways that benefit the company – and founders – rather than investment banks or large investors. Spotify announced its consideration of offering public shares later this year, but bucked tradition by stating that it intended to do so through a **direct offering**. That means the company could bypass the **investment bank**, save on placement fees, and offer more of its shares to the general public, rather than to just large institutional investors. Doing so might mean that Spotify would lose out on a first day share price pop, but with \$1 billion in debt financing, Spotify's public offering could be as much a way to return capital to investors as a way to raise funds for growth.

These companies aren't by any means committed to the IPO route. **AppDynamics** has been another widely discussed deal this year after it entered into a transaction with Cisco shortly after announcing its plan to IPO. With many competing options for startups and the declining appeal of traditional public offerings, public investors may have to settle for less than ideal terms. In an environment where investor desperation is high and other profitable avenues for startups exist, the startups may be gaining the upper hand when it comes to going public and they are starting to play by their own rules.



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## Public Market Indicators

Fundamentals in the MedTech industry continued to strengthen. The medical technology segment maintained growth and popularity, despite uncertainties in the healthcare industry.

LTM P/E multiples generally increased with a median of 39.2x.

- Healthcare Technology multiples weakened but remained high at 96.1x (vs. 104.9x in 2H16).

All segments posted revenue and EBITDA growth. The median industry growth rates were 7.5% and 8.9%, respectively.

Forward P/E multiples rose overall

- Healthcare Technology showed a positive market outlook at 59.9x (vs. 49.8x in 2H16).
- The industry median multiple of 25.6x was above the S&P 500 forward P/E of 18.7x (per WSJ).

Sources: NASDAQ and Wall Street Journal

### MedTech Industry Multiples

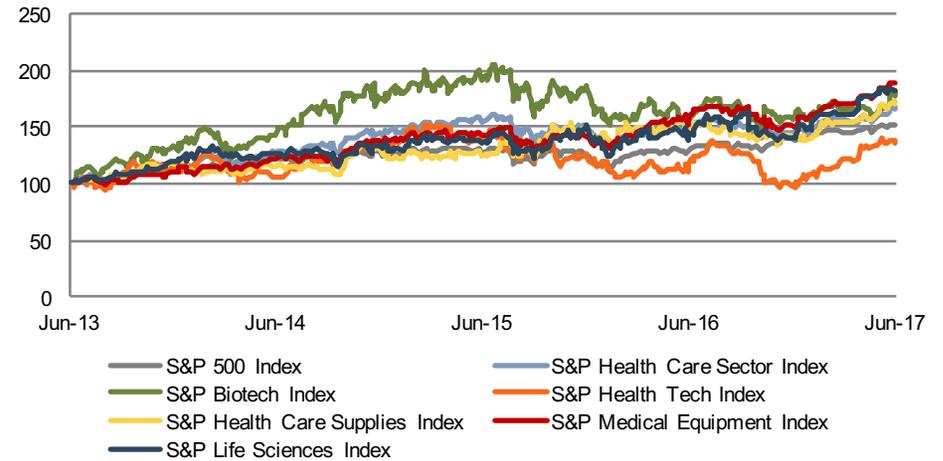
as of June 30, 2017

Segment	EV/ Revenue	EV/ EBITDA	EBITDA Margin	LTM P/E	Forward P/E	Revenue Growth (from LTM)	EBITDA Growth (from LTM)	Forward Price to Earnings / Growth*
Biotechnology	5.8	18.6	31.2%	39.0	23.3	7.1%	5.4%	0.6
Health Care Technology	4.6	40.3	14.9%	96.1	59.9	9.9%	7.9%	(1.0)
Health Care Supplies	5.9	21.8	21.4%	39.1	33.3	10.4%	13.5%	2.1
Medical Equipment	4.7	19.6	23.7%	40.2	26.2	7.6%	9.1%	3.7
Life Science Tools and Services	3.7	18.1	22.7%	33.3	24.0	6.5%	9.7%	0.1
<b>MedTech Industry</b>	<b>4.7</b>	<b>20.2</b>	<b>23.2%</b>	<b>39.2</b>	<b>25.6</b>	<b>7.5%</b>	<b>8.9%</b>	<b>1.8</b>

\*Price to Earnings to Growth (PEG) multiples calculated using forward P/E ratios and forward EPS growth estimates

Source: S&P Capital IQ

### Medical Technology Industry Total Returns



Source: S&P Capital IQ

MedTech industry consists of Biotechnology, Healthcare Technology, Healthcare Supplies, Medical Equipment, and Life Science Tools and Services

# Market Trends & Outlook

## Biotechnology

Changes to healthcare legislation “Trumpcare” passed House approval.

Biotech companies are entering more products in clinical trials.

- Currently over 2,000 immunotherapy drugs/therapies are in the clinical pipeline.

Biosimilars, cheaper versions of biotech drugs, no longer have to wait to go to market after obtaining FDA approval.

Nasdaq Biotechnology Index has increased 11% so far in 2017.

Sources: Wall Street Journal, Modern Healthcare, Research and Markets Report

## Healthcare Technology

Cybersecurity remains a top focus for medical technology companies and healthcare facilities.

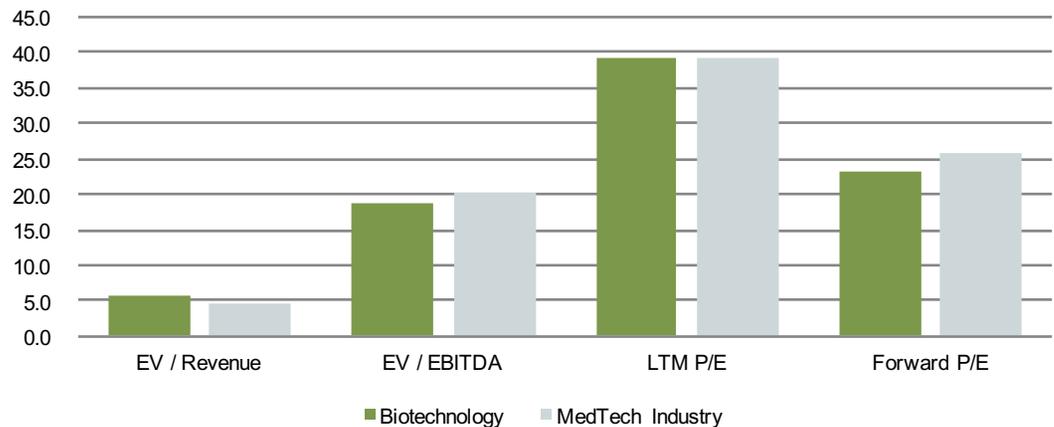
- WannaCry ransomware attack spurred Cybersecurity Task Force call for government policies.

Potential blockchain applications including revenue cycle management, claims management, and data integrity.

Government incentive program for electronic health records (EHR) conversion made overpayments totaling \$729M.

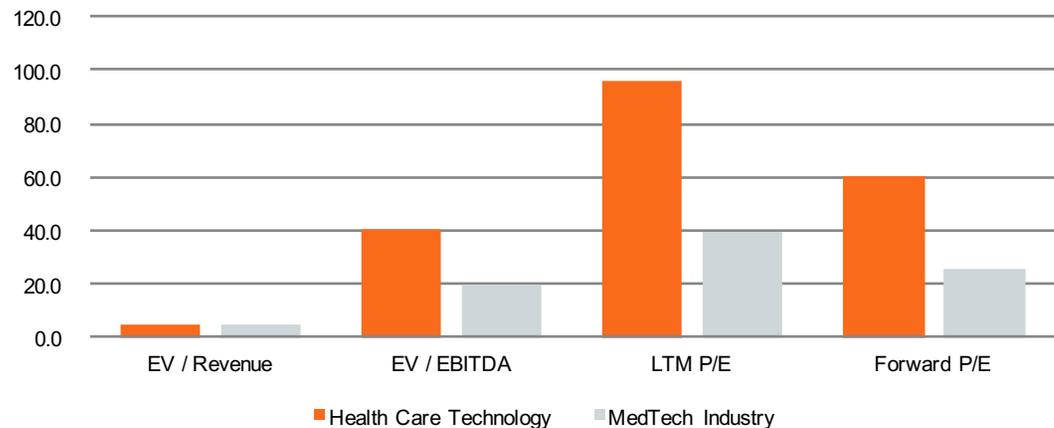
Sources: Modern Healthcare, Health Data Management, StartUp Health Insights Report

Median Biotechnology Multiples // as of June 30, 2017



Source: Capital IQ

Median Healthcare Technology Multiples // as of June 30, 2017



Source: Capital IQ

# Market Trends & Outlook

## Healthcare Supplies

Cost savings efforts are focused on “medical surplus,” the nearly \$765B per year of supplies wasted in hospitals.

Healthcare supply companies are consolidating in response to recent hospital consolidation.

- These companies are looking to control market share and build scale in response to bigger hospital buyers.

Sources: U.S. News & World Report, Modern Healthcare, Wall Street Journal, The Washington Post

## Medical Equipment

Virtual reality increases its medical application with neurosurgical simulation labs led by Stanford University.

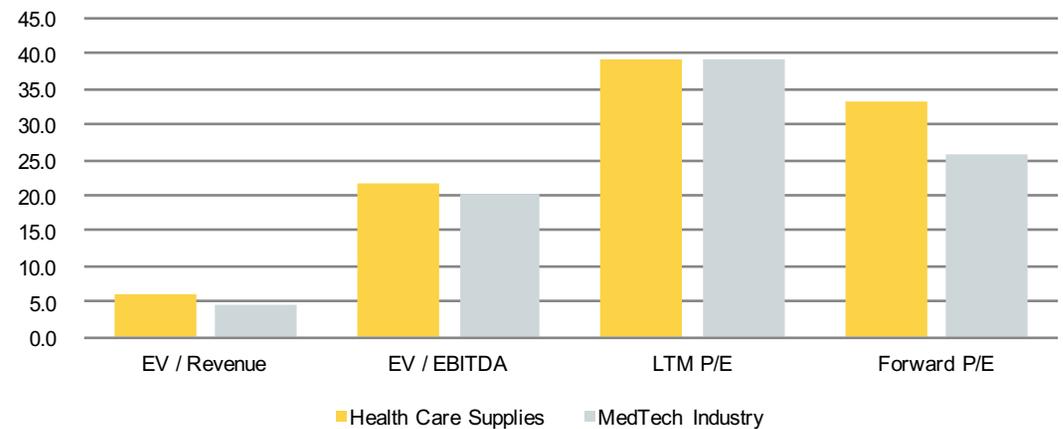
- VR simulations can increase patient safety by giving physicians real practice and put patients more at ease by educating them about the surgery beforehand.

Increased cyber attacks have pushed medical device makers to develop industry-wide cybersecurity standards.

Hospitals are adopting AI technology for patient self-service and patient data collection for increased personalization.

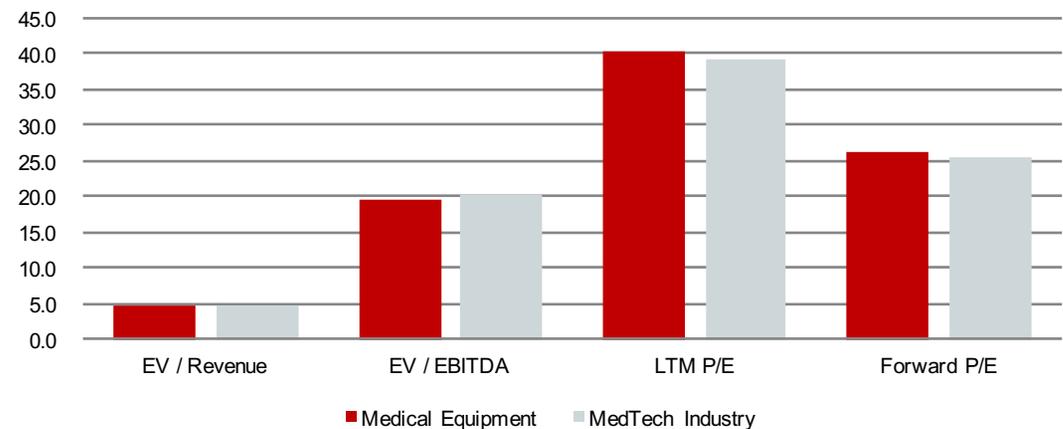
Sources: Stanford Medicine, FierceHealthcare, Healthcare IT News

Median Healthcare Supplies Multiples // as of June 30, 2017



Source: Capital IQ

Median Medical Equipment Multiples // as of June 30, 2017



Source: Capital IQ

# Market Trends & Outlook

## Life Science Tools & Services

Identity theft issues were raised in the proposed Anthem data breach settlement.

- This was the largest settlement in U.S. history for a data breach (\$115M).

Budget proposals from the Trump Administration outline cuts to National Institute of Health and Centers for Disease Control and Prevention.

Retail clinics increased in number and popularity, offering savings and accessibility.

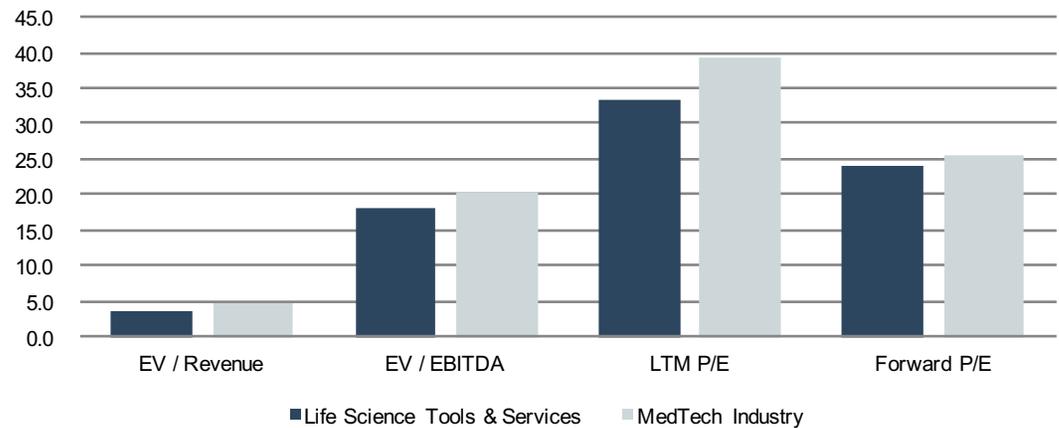
- Accenture estimates 2,800 retail clinics by 2018.

“Patient-first” focus is pushing competitors to enter new coordination agreements.

- Rival EHR companies Allscripts, Epic, and Cerner entered an agreement to open EHR systems and share data in attempt to increase patient safety.

Source: Modern Healthcare, Business Insider, Healthcare IT News

Median Life Science Multiples // as of June 30, 2017



Source: Capital IQ

# MedTech M&A Trends & Outlook

## Prior Half Comparison 1H17 vs. 2H16

M&A activity expanded in the first half of 2017 with 229 transactions (compared to 209 in 2H16).

- Average deal value increased 39% to \$870M (from \$625M in 2H16)
- Top ten transactions in 1H17 totaled \$52.0B (14% increase from \$45.5B in 2H16)

Seven buyers made more than one transaction, including Allergan, EMR Technology, and Merit Medical Systems.

Largest deal was Abbott Laboratories' acquisition of major health-care equipment company St. Jude Medical for \$30.3B.

## Year-over-Year Comparison 1H17 vs. 1H16

Yearly trends show slight decline in number and large decline in value of M&A exits from the prior year.

- 1H17 deal count fell from 252 during the 1H16.
- 1H17 total deal value fell from \$75.1 in 1H16.
- 1H17 average deal value lowered from \$950M in 1H16.

### MedTech Deal Activity

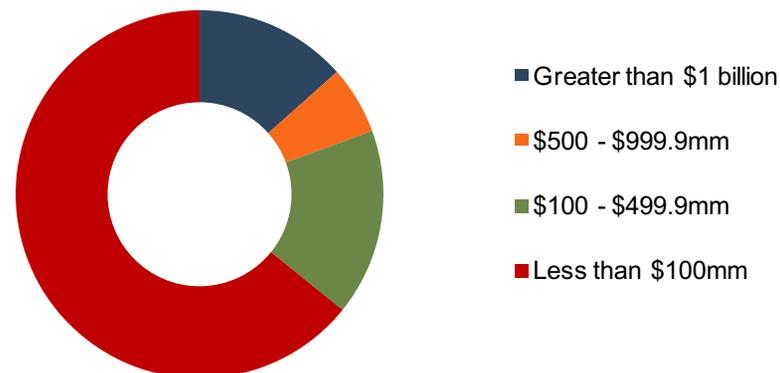
1H17 vs. 2H16

	1H17	2H16	% Change
# of Deals	229	209	10%
Total Reported Deal Value (\$M)	\$58,261	\$53,167	10%
Average Reported Deal Value (\$M)	\$870	\$625	39%

Source: Capital IQ

### MedTech Deal Sizes

1H17



Source: Capital IQ

# MedTech M&A Trends & Outlook

## Niche M&A Highlights

Healthcare Technology continues to grow as the most active sector for M&A with 81 deals in 1H17.

Acquirers focus on strategic drug and device investments to increase their offerings in niche markets.

## Important Deals

**Abbott Laboratories** acquisition of **St. Jude Medical** for \$30.3B (January 4, 2017)

- Expansion and diversification of Abbott's cardiovascular device portfolio
- Implied EV/EBITDA: 18.8x

**Allergan** acquisition of **ZELTIQ Aesthetics** for \$2.5B (April 28, 2017)

- Cross selling opportunities with ZELTIQ's CoolSculpting fat-reduction system
- Expansion of Allergan's customer-paid aesthetics offerings
- Implied EV/EBITDA multiple of: 143.3x

## MedTech Deal Activity

1H17

Buyer	Target	Industry Segment	Date Closed	Total Trans. Value (\$M)	Implied EV/ EBITDA
Abbott Laboratories (NYSE:ABT)	St. Jude Medical, Inc.	Healthcare Equipment	1/4/17	\$30,336.6	18.8
Takeda Pharmaceuticals U.S.A., Inc.	ARIAD Pharmaceuticals, Inc.	Biotechnology	2/15/17	\$5,451.5	NM
Chace LLC	Abbott Medical Optics Inc.	Healthcare Supplies	2/27/17	\$4,325.0	NM
Allergan plc (NYSE:AGN)	LifeCell Corporation	Biotechnology	2/1/17	\$2,900.0	NM
Allergan plc (NYSE:AGN)	ZELTIQ Aesthetics, Inc.	Healthcare Equipment	4/28/17	\$2,471.4	143.3
Grifols Diagnostic Solutions Inc.	Hologic, Inc., Nucleic Acid Testing Donor Screening Business	Healthcare Equipment	1/31/17	\$1,850.0	NM
Hologic, Inc. (NasdaqGS:HOLX)	Cynosure, Inc.	Healthcare Equipment	3/21/17	\$1,679.5	25.9
ICU Medical, Inc. (NasdaqGS:ICUI)	Hospira Inc., Infusion Systems Business	Healthcare Supplies	2/3/17	\$1,050.0	6.7
Teleflex Incorporated (NYSE:TFX)	Vascular Solutions, Inc.	Healthcare Supplies	2/17/17	\$1,007.2	44.7
Eli Lilly and Company (NYSE:LLY)	CoLucid Pharmaceuticals, Inc.	Biotechnology	2/28/17	\$961.2	NM
<b>Average</b>				<b>\$5,203.2</b>	<b>47.9</b>
<b>Median</b>				<b>\$2,160.7</b>	<b>25.9</b>

Source: S&P Capital IQ

# MedTech IPOs

MedTech IPO performance during the year has been volatile, reflecting a trend in the greater IPO market.

There were nine IPOs in the first half of 2017, consistent with nine in 2H16.

Total gross proceeds of \$665M (median \$75M) in 1H17 vs. \$2.1B in 2H16.

No companies went public with a market cap greater than \$1B.

- Median market cap was \$258.1M.

Median return since IPO of 1.9% in 1H17 with several stocks showing price declines.

Source: Capital IQ

## 1H17 MedTech IPOs

Ticker	Name	IPO Price	IPO Date	Gross Proceeds (\$M)	% Return Since IPO	6/30/17 Price	6/30/17 Mkt Cap (\$M)	6/30/17 Ent Val (\$M)	Rev. (\$M)	LTM		MedTech Niche	Description
										EBITDA (\$M)	Net Income (\$M)		
ALRN	Aileron Therapeutics, Inc.	\$15.00	6/28/17	\$56.25	-25.7%	\$11.15	164.02	279.12	\$0.00	(\$18.63)	(\$18.76)	Pharmaceuticals, Biotechnology and Life Sciences	Aileron Therapeutics, Inc., a clinical-stage biopharmaceutical company, engages in developing and commercializing a novel class of therapeutics in the United States.
MRSN	Mersana Therapeutics, Inc.	\$15.00	6/27/17	\$75.00	-6.9%	\$13.97	\$316.36	\$322.29	\$25.76	(\$15.82)	(\$16.41)	Pharmaceuticals, Biotechnology and Life Sciences	Mersana Therapeutics, Inc. is a biotechnology company that discovers, engineers, and develops antibody drug conjugates to cure various cancers.
ATNX	Athenex, Inc.	\$11.00	6/14/17	\$66.00	45.5%	\$16.00	\$911.35	\$928.96	\$20.50	(\$106.70)	(\$118.09)	Pharmaceuticals, Biotechnology and Life Sciences	Athenex, Inc., a biopharmaceutical company, engages in the discovery, development, and commercialization of therapies for the treatment of cancer.
IBX	Imagion Biosystems, Inc.	\$0.15	6/21/17	\$9.06	-0.9%	\$0.15	\$30.54	\$40.07	\$0.00	(\$3.71)	(\$7.95)	Healthcare Equipment and Services	Imagion Biosystems, Inc. engages in the research and development of medical imaging technology in Australia and internationally.

Source: Capital IQ

## 1H17 MedTech IPOs (cont.)

Ticker	Name	IPO Price	IPO Date	Gross Proceeds (\$M)	% Return Since IPO	6/30/17 Price	6/30/17 Mkt Cap (\$M)	6/30/17 Ent Val (\$M)	Rev. (\$M)	LTM		MedTech Niche	Description
										EBITDA (\$M)	Net Income (\$M)		
GTHX	G1 Therapeutics, Inc.	\$15.00	5/16/17	\$105.00	16.3%	\$17.44	\$491.73	\$566.05	\$0.00	(\$36.76)	(\$36.68)	Pharmaceuticals, Biotechnology and Life Sciences	G1 Therapeutics, Inc., a clinical-stage biopharmaceutical company, focuses on the discovery and development of novel therapeutics for the treatment of cancer in the United States.
OVID	Ovid Therapeutics Inc.	\$15.00	5/4/17	\$75.00	-30.1%	\$10.49	\$258.07	\$213.86	\$0.00	(\$53.01)	(\$52.97)	Pharmaceuticals, Biotechnology and Life Sciences	Ovid Therapeutics Inc., a biopharmaceutical company, develops impactful medicines for patients and families with neurological disorders in the United States.
BHVN	Biohaven Pharmaceutical Holding Company Ltd.	\$17.00	5/3/17	\$168.30	47.1%	\$25.00	\$893.70	\$920.41	\$0.00	(\$72.14)	(\$79.48)	Pharmaceuticals, Biotechnology and Life Sciences	Biohaven Pharmaceutical Holding Company Ltd., a clinical-stage biopharmaceutical company, develops product candidates to treat neurological diseases, including rare disorders.
TOCA	Tocagen Inc.	\$10.00	4/12/17	\$85.00	20.3%	\$12.03	\$238.29	\$367.68	\$0.05	(\$32.42)	(\$34.55)	Pharmaceuticals, Biotechnology and Life Sciences	Tocagen Inc., a clinical-stage cancer-selective gene therapy company, focuses on developing and commercializing product candidates designed to activate a patient's immune system against their cancer.
VTI	Visioneering Technologies, Inc.	\$0.32	3/27/17	\$25.41	1.9%	\$0.33	\$64.69	\$81.86	\$0.22	(\$3.65)	(\$4.96)	Healthcare Equipment and Services	Visioneering Technologies, Inc. engages in the design, manufacture, sale, and distribution of its NaturalVue Multifocal 1 Day (NaturalVue MF) contact lenses for adults with presbyopia and children with myopia in the United States.
<b>Median</b>				<b>\$75.00</b>	<b>1.9%</b>	<b>\$12.03</b>	<b>\$258.07</b>	<b>\$322.29</b>	<b>\$0.00</b>	<b>(\$32.42)</b>	<b>(\$34.55)</b>		

Source: Capital IQ

## MedTech Venture Capital Activity Overview

MedTech venture capital funding activity picked back up in the first half 2017, both in number and amount of funding.

- Total deal value rose to \$7.1B in 1H17 (up 27% from \$5.6B in 2H16).
- Increase in number of financing rounds to 383 (up 20% from 318 in 2H16).

Biotechnology remains the most active segment.

Source: National Venture Capital Association

Company	Amount (\$M)	Company Description
<b>ConvaTec</b>	1,210	Wound care and ostomy products
<b>Spectranetics</b>	140	A variety of medical devices treatments in cardiovascular diseases
<b>Merit Medical Systems, Inc.</b>	137	Medical devices used in interventional, diagnostic and therapeutic procedures, particularly in cardiology, radiology and endoscopy
<b>Endologix</b>	120	Minimally invasive technologies for aortic disorders
<b>BioDelivery Sciences</b>	75	Drug delivery in pain management and addiction medicine
<b>CVRx, Inc.</b>	58	Implantable device for baroreceptor stimulation to manage blood pressure
<b>Bonesupport</b>	57	Injectable osteoconductive and drug-eluting bioceramic materials to treat bone defects
<b>Apollo Endosurgery US, Inc.</b>	54	Minimally invasive devices for surgery, bariatrics
<b>Entellus Medical, Inc.</b>	37	Minimally invasive treatment of chronic and recurrent sinusitis

*A summary of selected MedTech venture capital financing activity in the first half of 2017. Covers selected financing rounds larger than \$15 million.*

*Source: Advanced Medical Technologies Blog*

## MedTech Venture Capital Activity Overview (cont.)

Company	Amount (\$M)	Company Description
MedLumics	37	Optically guided minimally invasive instruments
Glooko	35	Diabetes management system
ProTom International	30	Proton therapy for cancer
POC Medical Systems, Inc.	21	Portable breast cancer screening
Art Medical	20	Smart intubation for intensive care
Velano Vascular	17	Needle-free blood draw device
HemoSonics, Inc.	15	Point-of-care diagnostics platform
NxThera, Inc.	15	Device to alleviate urinary symptoms of benign prostatic hyperplasia

*A summary of selected MedTech venture capital financing activity in the first half of 2017. Covers selected financing rounds larger than \$15 million.*

*Source: Advanced Medical Technologies Blog*

# M&A Case Study



acquisition of



“Our combined scale will expand the global reach, competitiveness and impact of our medical device innovation for physicians and hospitals.”

– **Michael T. Rosseau**  
St. Jude Medical President and CEO

“You’re trying to get more care to more patients at a lower cost, and that is a size and scope issue. Being able to have that broad portfolio allows you to address some of the market challenges around cost in a completely different way.”

– **Shaye Mandle**  
CEO of Medical Alley Association

## M&A Case Study

**Abbott Laboratories:** Abbott Labs is a medical technology company founded in 1888 that creates a broad range of products from diagnostics to pharmaceuticals to improve health outcomes.

**St. Jude Medical:** Closed at \$80.72 on 1/4/17

- Founded in 1976, St. Jude Medical is a large medical device manufacturing company, with its main products in the cardiovascular health industry.

Acquisition of St. Jude Medical was announced on April 28, 2016

- Deal closed on January 4, 2017.

*Source: Abbot, St. Jude Medical*

### Timeline

Year	Significant Corporate Events
1894	Abbott Alkaloidal Company incorporated
1929	Abbott initial public offering takes place shortly before the stock market crash and beginning of the Great Depression
1958	First fully implantable pacemaker received by a patient
1976	St. Jude Medical is founded
1977	St. Jude Medical has its first initial public offering with a stock price of \$3.50
1999	St. Jude Medical received FDA approval for Integrity AFX Pacemaker
2002	FDA approval for Abbott's Humira antibody drug (which became the top selling pharmaceutical)
2013	Creation of AbbVie pharmaceutical company, a spinoff of Abbott's pharmaceutical business
April 28, 2016	Abbott announced acquisition of St. Jude Medical
January 4, 2017	Closure of Abbott/St. Jude acquisition for \$23.6 billion
January 20, 2017	Terumo Corporation agrees to buy certain cardiovascular assets from Abbott/St. Jude for \$1.1 billion

*Source: Crunchbase*

# M&A Case Study

## Deal Details

Total transaction value of \$30.3 billion

- 18.8x Implied EV/EBITDA
- 5.3x Implied EV/Revenue

St. Jude Medical shareholders will receive about \$85 per share.

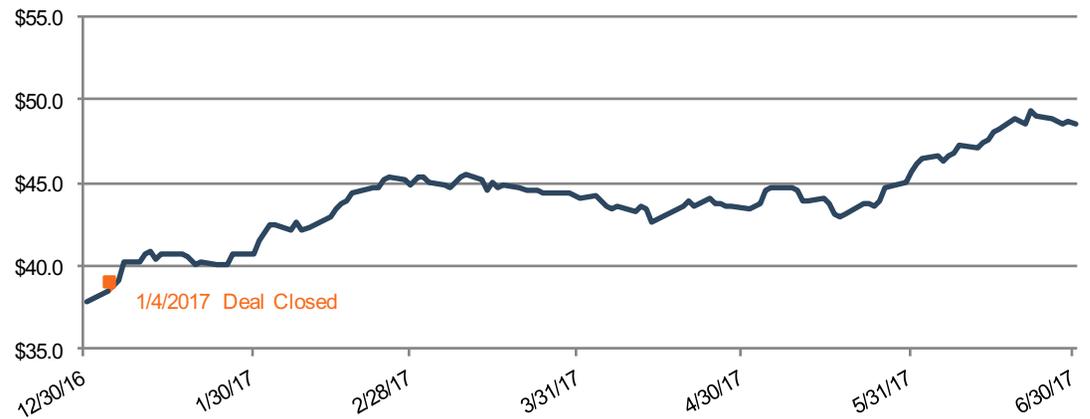
- \$46.75 in cash, 0.8708 Abbott common shares

## Stock Performance

- ABT stock price rose 25% following deal closure (Jan 4, 2017) through June 30.
- STJ stock price rose 30% following deal announcement (Apr. 28, 2016) through deal closure (Jan. 4, 2017).

Sources: Yahoo Finance, Google Finance

### ABT Stock Price



Source: Yahoo Finance

## M&A Case Study

### Sale of Assets

Japanese medical equipment maker Terumo Corporation agreed to acquire certain vascular close product lines on January 20, 2017. These products include Angio-Seal and FemoSeal, as well as Kalila Medical Inc., an Abbott affiliate that produces Steerable Sheath. This deal is part of an FTC condition for Abbott Labs to secure antitrust approval before acquiring St. Jude.

### Conclusion

Consolidation has continued to be the focus of the hospital and healthcare industries. Abbott's acquisition of St. Jude Medical marked the move towards large scale consolidation in the medical technology segment as well. This acquisition will allow Abbott to increase its strategic coverage and market share in the \$30 billion cardiovascular market. It also presents an opportunity for Abbott to ramp up its medical device innovation by combining St. Jude's expertise in atrial fibrillation and heart failure with Abbott's position in the medical technology industry. This merger has the potential to expand Abbott's portfolio and cement its position in the market by rapidly increasing scale, improving patient access and outcomes, and lowering operational costs.

Sources: Bloomberg

### What We're Reading

#### How Apps Can Help Manage Chronic Diseases

*The Wall Street Journal (subscription required)*

#### Medical Tech or Personal Touch? PeraHealth Has Cracked the Code

*Forbes*

#### A Digital Revolution in Health Care is Speeding Up

*The Economist*

#### Big Money Flowing Into Biotech Stocks – Again

*Forbes*

#### Health-Tech Startups Pivot as Obamacare Uncertainty Mounts

*The Wall Street Journal (subscription required)*

#### How AI is Transforming Drug Creation

*The Wall Street Journal (subscription required)*

## Publicly Traded Companies

## Biotechnology

Company Name	Ticker	Price at 6/30/17	Market Cap (USD \$M) 6/30/17	5 Year Beta	EV/Rev.	EV/ EBITDA	EBITDA Margin	LTM P/E	Forward P/E	Revenue Growth (from LTM)	EBITDA Growth (from LTM)	Forward Price to Earnings / Growth*
AbbVie Inc.	ABBV	\$72.51	\$115,403	1.53	5.6	13.1	42.5%	18.8	12.7	5.9%	5.4%	1.1
Alexion Pharmaceuticals, Inc.	ALXN	121.67	27,322	1.41	9.0	23.2	38.6%	58.0	22.2	15.3%	21.3%	1.4
Amgen Inc.	AMGN	172.23	126,658	1.35	5.3	10.1	52.8%	16.4	13.9	2.0%	6.7%	0.7
Biogen Inc.	BIIB	271.36	57,967	0.72	5.3	10.2	52.4%	17.0	13.2	2.6%	-1.9%	0.5
Celgene Corporation	CELG	129.87	101,406	1.90	9.1	26.0	35.2%	48.8	17.0	14.9%	9.9%	1.6
China Biologic Products, Inc.	EBS	113.10	3,076	1.74	8.5	18.6	45.7%	29.3	23.7	7.1%	7.1%	0.5
Eagle Pharmaceuticals, Inc.	EGRX	78.89	1,207	1.43	5.0	13.0	38.4%	12.4	26.9	150.7%	3085.6%	NM
Emergent BioSolutions Inc.	EBS	33.91	1,389	1.27	2.7	9.1	29.9%	25.8	23.3	-7.9%	1.8%	4.8
Five Prime Therapeutics, Inc.	FPRX	30.11	867	4.28	14.2	(4.4)	-323.7%	NM	NM	-91.1%	-141.1%	NM
Gilead Sciences Inc.	GILF	70.78	92,490	1.22	3.6	5.7	62.7%	7.5	9.0	-10.1%	-15.7%	0.2
Incyte Corporation	INCY	125.91	25,783	0.83	20.6	712.5	2.9%	NM	NM	30.3%	-78.1%	NM
INSYS Therapeutics, Inc.	INSY	12.65	912	0.87	3.5	239.5	1.5%	NM	NM	-30.2%	-96.2%	NM
MiMedx Group, Inc.	MDXG	14.97	1,660	1.02	6.2	55.2	11.2%	107.0	45.7	24.9%	11.9%	NM
Myriad Genetics, Inc.	MYGN	25.84	1,760	0.34	2.3	14.3	16.2%	55.3	24.9	0.5%	-36.6%	(1.4)
Progenics Pharmaceuticals, Inc.	PGNX	6.79	477	3.38	5.8	43.2	13.3%	69.9	NM	298.0%	-127.4%	NM
Regeneron Pharmaceuticals, Inc.	REGN	491.14	51,932	1.67	10.3	33.1	31.2%	59.5	36.1	7.1%	16.2%	NM
Repligen Corporation	RGEN	41.44	1,528	1.32	13.5	54.1	24.9%	109.3	111.0	15.2%	8.9%	NM
United Therapeutics Corporation	UTHR	129.73	5,846	1.52	2.9	4.7	62.1%	9.1	8.8	1.8%	-18.8%	0.4
Xencor, Inc.	XNCR	21.11	986	2.11	9.8	52.9	18.6%	59.8	NM	-14.1%	-62.1%	NM
<b>Average</b>		<b>\$103.37</b>	<b>\$32,562</b>	<b>1.57</b>	<b>7.5</b>	<b>70.2</b>	<b>13.5%</b>	<b>44.0</b>	<b>27.7</b>	<b>22.3%</b>	<b>136.7%</b>	<b>1.0</b>
<b>Median</b>		<b>\$72.51</b>	<b>\$3,076</b>	<b>1.41</b>	<b>5.8</b>	<b>18.6</b>	<b>31.2%</b>	<b>39.0</b>	<b>22.7</b>	<b>5.9%</b>	<b>1.8%</b>	<b>0.6</b>

Pricing as of June 30, 2017

\*Price to Earnings to Growth (PEG) multiples calculated using forward P/E ratios and forward EPS growth estimates

## Publicly Traded Companies

## Healthcare Technology

Company Name	Ticker	Price at 6/30/17	Market Cap (USD \$M) 6/30/17	5 Year Beta	EV/Rev.	EV/ EBITDA	EBITDA Margin	LTM P/E	Forward P/E	Revenue Growth (from LTM)	EBITDA Growth (from LTM)	Forward Price to Earnings / Growth*
athenahealth, Inc.	ATHN	\$140.55	\$5,599	1.79	5.2	51.5	10.1%	276.7	70.3	9.9%	24.1%	NM
Cerner Corporation	CERN	66.47	21,964	0.98	4.6	16.3	28.0%	34.3	25.9	7.4%	7.9%	1.7
HealthEquity, Inc.	HQY	49.83	2,988	1.79	14.7	48.5	30.4%	93.6	70.9	34.6%	39.8%	NM
HealthStream, Inc.	HSTM	26.32	839	1.01	3.1	33.5	9.3%	239.1	114.9	6.0%	-12.3%	(7.1)
Inovalon Holdings, Inc.	INOV	13.15	1,920	1.19	3.8	20.2	18.8%	72.6	38.4	-4.3%	-27.7%	NM
Medidata Solutions, Inc.	MDSO	78.20	4,555	1.81	9.2	61.6	14.9%	132.7	59.9	15.5%	41.4%	NM
Omnicell, Inc.	OMCL	43.10	1,602	0.65	2.6	40.3	6.5%	NM	26.9	12.1%	-38.5%	NM
Quality Systems, Inc.	QSII	17.21	1,079	0.92	2.1	18.0	11.5%	59.3	24.8	3.5%	4.2%	(1.0)
Veeva Systems Inc.	VEEV	61.31	8,568	1.62	13.6	55.9	24.3%	98.7	72.6	32.6%	59.2%	NM
<b>Average</b>		<b>\$55.13</b>	<b>\$5,457</b>	<b>1.31</b>	<b>6.5</b>	<b>38.4</b>	<b>17.1%</b>	<b>125.9</b>	<b>56.1</b>	<b>13.1%</b>	<b>10.9%</b>	<b>(2.1)</b>
<b>Median</b>		<b>\$49.83</b>	<b>\$2,988</b>	<b>1.19</b>	<b>4.6</b>	<b>40.3</b>	<b>14.9%</b>	<b>96.1</b>	<b>59.9</b>	<b>9.9%</b>	<b>7.9%</b>	<b>(1.0)</b>

Pricing as of June 30, 2017

\*Price to Earnings to Growth (PEG) multiples calculated using forward P/E ratios and forward EPS growth estimates

## Publicly Traded Companies

## Medical Supplies

Company Name	Ticker	Price at 6/30/17	Market Cap (USD \$M) 6/30/17	5 Year Beta	EV/Rev.	EV/ EBITDA	EBITDA Margin	LTM P/E	Forward P/E	Revenue Growth (from LTM)	EBITDA Growth (from LTM)	Forward Price to Earnings / Growth*
Align Technology, Inc.	ALGN	\$150.12	\$12,059	1.54	10.0	40.5	24.7%	56.0	46.2	21.7%	20.9%	1.9
Anika Therapeutics, Inc.	ANIK	49.34	723	1.68	5.6	11.3	49.5%	23.8	25.0	1.0%	-12.2%	1.1
Atrion Corporation	ATRI	643.30	1,182	0.92	7.8	23.2	33.5%	39.1	0.0	2.6%	-0.8%	0.0
DENTSPLY SIRONA Inc.	XRAY	64.84	14,863	1.28	4.1	19.6	21.2%	41.7	21.5	24.4%	24.8%	(47.0)
ICU Medical, Inc.	ICUI	172.50	3,415	0.35	6.3	32.2	19.4%	30.7	70.1	45.7%	-7.5%	5.6
Meridian Bioscience, Inc.	VIVO	15.75	665	0.92	3.4	12.0	28.1%	22.2	22.9	1.7%	-11.9%	(70.9)
Merit Medical Systems, Inc.	MMSI	38.15	1,904	1.25	3.3	22.0	15.1%	56.7	31.9	13.9%	26.6%	7.3
Neogen Corporation	NEOG	69.11	2,634	1.53	7.1	33.0	21.5%	64.0	54.8	9.8%	10.2%	4.8
OraSure Technologies, Inc.	OSUR	17.26	997	1.56	6.8	40.3	16.9%	33.0	63.9	2.9%	16.3%	nm
Quidel Corporation	QDEL	27.14	901	1.24	4.0	21.4	18.5%	226.8	39.3	15.2%	181.6%	nm
The Cooper Companies, Inc.	COO	239.42	11,697	0.62	6.3	20.4	30.9%	35.9	23.9	11.0%	10.8%	2.6
West Pharmaceutical Services, Inc.	WST	94.52	6,952	1.12	4.6	21.6	21.1%	39.1	34.8	5.5%	29.3%	2.3
<b>Average</b>		<b>\$131.79</b>	<b>\$4,833</b>	<b>1.17</b>	<b>5.8</b>	<b>24.8</b>	<b>25.0%</b>	<b>55.8</b>	<b>36.2</b>	<b>13.0%</b>	<b>24.0%</b>	<b>(9.2)</b>
<b>Median</b>		<b>\$66.98</b>	<b>\$2,269</b>	<b>1.24</b>	<b>5.9</b>	<b>21.8</b>	<b>21.4%</b>	<b>39.1</b>	<b>33.3</b>	<b>10.4%</b>	<b>13.5%</b>	<b>2.1</b>

Pricing as of June 30, 2017

\*Price to Earnings to Growth (PEG) multiples calculated using forward P/E ratios and forward EPS growth estimates

## Publicly Traded Companies

## Medical Equipment

Company Name	Ticker	Price at 6/30/17	Market Cap (USD \$M) 6/30/17	5 Year Beta	EV/Rev.	EV/ EBITDA	EBITDA Margin	LTM P/E	Forward P/E	Revenue Growth (from LTM)	EBITDA Growth (from LTM)	Forward Price to Earnings / Growth*
Abaxis, Inc.	ABAX	\$53.02	\$1,201	0.83	4.7	20.4	22.8%	36.8	44.6	1.7%	-2.9%	26.8
ABIOMED, Inc.	ABMD	143.30	6,314	0.21	13.7	62.3	22.0%	122.5	76.9	24.0%	28.2%	3.2
Analogic Corporation	ALOG	72.65	906	0.92	1.5	11.5	12.7%	NM	25.7	-2.4%	12.4%	(10.9)
Baxter International Inc.	BAX	60.54	32,914	0.57	3.2	15.4	20.8%	18.0	26.4	2.1%	22.5%	12.4
Becton, Dickinson and Company	BDX	195.11	44,359	1.06	4.4	16.9	25.9%	32.4	20.0	0.1%	-0.4%	273.9
Boston Scientific Corporation	BSX	27.72	37,960	1.12	5.0	19.5	25.9%	89.0	21.9	8.9%	10.4%	2.5
C. R. Bard, Inc.	BCR	316.11	22,954	0.60	6.3	20.5	30.8%	40.2	26.5	7.1%	8.7%	3.7
Cantel Medical Corp.	CMD	77.91	3,251	1.24	4.5	23.7	19.1%	46.1	35.1	17.2%	15.9%	2.0
CONMED Corporation	CNMD	50.94	1,420	0.67	2.4	15.1	16.2%	116.0	26.6	4.6%	0.7%	5.7
CryoLife, Inc.	CRY	19.95	664	1.02	3.7	26.9	13.8%	64.7	59.7	9.5%	-12.1%	6.3
Edwards Lifesciences Corporation	EW	118.24	24,807	0.64	7.9	24.6	32.0%	39.3	33.1	14.8%	23.4%	2.2
Globus Medical, Inc.	GMED	33.15	3,185	0.64	4.9	13.9	35.4%	30.4	25.5	4.7%	4.0%	5.4
Hill-Rom Holdings, Inc.	HRC	79.61	5,236	1.25	2.8	16.2	17.1%	34.4	19.4	6.1%	-1.3%	3.2
Hologic, Inc.	HOLX	45.38	12,707	0.92	5.1	14.7	35.0%	16.3	22.0	3.0%	-0.8%	7.2
IDEXX Laboratories, Inc.	IDXX	161.42	14,225	0.48	8.3	33.6	24.7%	59.8	52.2	7.7%	12.4%	6.8
Inogen, Inc.	INGN	95.42	1,964	1.03	8.6	51.9	16.6%	85.4	91.4	18.8%	8.9%	4.9

Pricing as of June 30, 2017

\*Price to Earnings to Growth (PEG) multiples calculated using forward P/E ratios and forward EPS growth estimates

## Publicly Traded Companies

## Medical Equipment (cont.)

Company Name	Ticker	Price at 6/30/17	Market Cap (USD \$M) 6/30/17	5 Year Beta	EV/Rev.	EV/ EBITDA	EBITDA Margin	LTM P/E	Forward P/E	Revenue Growth (from LTM)	EBITDA Growth (from LTM)	Forward Price to Earnings / Growth*
Integra LifeSciences Holdings Corp.	IART	54.51	4,122	0.73	4.8	20.6	23.2%	64.9	27.0	5.8%	11.3%	4.6
Intuitive Surgical, Inc.	ISRG	935.37	34,460	0.40	11.9	30.6	38.7%	47.2	37.9	10.4%	12.7%	3.6
Masimo Corporation	MASI	91.18	4,663	0.80	6.1	25.3	24.1%	15.5	38.1	10.9%	24.9%	3.5
Medtronic plc	MDT	88.75	120,614	1.05	4.7	15.2	31.0%	30.7	18.0	3.0%	5.5%	5.9
Natus Medical Incorporated	BABY	37.30	1,215	0.96	3.0	19.0	15.8%	35.9	20.9	11.0%	-5.0%	1.9
NuVasive, Inc.	NUVA	76.92	3,897	1.10	4.4	19.8	22.3%	80.7	35.8	15.0%	24.6%	2.4
ResMed Inc.	RMD	77.87	11,043	0.84	5.6	20.4	27.6%	34.2	26.1	10.3%	6.9%	2.5
Steris Plc	STE	81.50	6,929	1.33	3.1	15.7	19.9%	63.7	20.2	7.5%	3.6%	2.7
Stryker Corporation	SYK	138.78	51,871	0.81	4.7	17.3	27.4%	31.2	21.2	12.6%	13.1%	1.7
Teleflex Incorporated	TFX	207.76	9,345	1.05	5.6	21.2	26.2%	43.2	24.5	6.3%	9.4%	3.9
Varian Medical Systems, Inc.	VAR	103.19	9,485	0.61	2.9	14.9	19.2%	29.0	25.0	14.9%	15.0%	1.7
Zimmer Biomet Holdings, Inc.	ZBH	128.40	25,891	1.23	4.7	12.9	36.2%	52.6	14.7	3.0%	-3.4%	5.0
<b>Average</b>		<b>\$127.57</b>	<b>\$17,772</b>	<b>0.86</b>	<b>5.3</b>	<b>22.1</b>	<b>24.4%</b>	<b>50.4</b>	<b>32.7</b>	<b>8.5%</b>	<b>8.9%</b>	<b>14.1</b>
<b>Median</b>		<b>\$80.56</b>	<b>\$8,137</b>	<b>0.88</b>	<b>4.7</b>	<b>19.6</b>	<b>23.7%</b>	<b>40.2</b>	<b>26.2</b>	<b>7.6%</b>	<b>9.1%</b>	<b>3.7</b>

Pricing as of June 30, 2017

\*Price to Earnings to Growth (PEG) multiples calculated using forward P/E ratios and forward EPS growth estimates

## Publicly Traded Companies

## Life Science Tools &amp; Services

Company Name	Ticker	Price at 6/30/17	Market Cap (USD \$M) 6/30/17	5 Year Beta	EV/Rev.	EV/ EBITDA	EBITDA Margin	LTM P/E	Forward P/E	Revenue Growth (from LTM)	EBITDA Growth (from LTM)	Forward Price to Earnings / Growth*
Agilent Technologies, Inc.	A	\$59.31	\$19,059	1.22	4.3	19.0	22.7%	33.3	25.2	5.6%	12.7%	(0.1)
Bio-Rad Laboratories, Inc.	BIO	226.31	6,693	0.91	3.1	23.7	13.0%	240.1	60.2	3.4%	-6.8%	(0.3)
Bio-Techne Corporation	TECH	117.50	4,387	0.79	8.6	23.0	37.2%	63.2	30.4	8.4%	7.4%	(0.1)
Bruker Corporation	BRKR	28.84	4,612	1.11	2.8	17.2	16.3%	30.6	25.2	0.0%	9.9%	0.1
Cambrex Corporation	CBM	59.75	1,946	2.28	3.7	11.4	32.3%	21.1	20.3	8.1%	15.4%	0.4
Charles River Laboratories International, Inc.	CRL	101.15	4,819	1.03	3.3	13.9	23.9%	29.7	19.8	18.8%	19.6%	0.1
Enzo Biochem, Inc.	ENZ	11.04	512	0.97	4.2	(98.2)	-4.3%	15.5	NM	4.3%	123.6%	NM
Illumina, Inc.	ILMN	173.52	25,334	0.84	10.2	36.3	28.0%	35.1	44.0	7.6%	-4.2%	0.5
Lantheus Holdings, Inc.	LNTH	17.65	659	0.86	2.9	12.6	23.0%	29.6	18.5	2.3%	5.3%	0.0
Luminex Corporation	LMNX	21.12	928	0.30	2.9	16.7	17.7%	65.7	25.2	15.0%	-8.1%	0.0
PAREXEL International Corporation	PRXL	86.91	4,437	0.79	2.3	14.2	16.3%	38.2	23.3	0.1%	-4.1%	0.3
PerkinElmer, Inc.	PKI	68.14	7,498	0.77	3.9	20.2	19.2%	35.7	23.2	2.7%	9.1%	NM
PRA Health Sciences, Inc.	PRAH	75.01	4,686	0.47	3.3	20.5	16.1%	44.8	22.3	10.9%	9.7%	0.0
Thermo Fisher Scientific Inc.	TMO	174.47	68,256	1.07	4.5	18.1	25.0%	31.8	18.4	8.1%	10.5%	0.1
Waters Corporation	WAT	183.84	14,714	0.86	6.2	18.2	34.1%	28.0	24.7	6.5%	12.9%	0.1
<b>Average</b>		<b>\$93.64</b>	<b>\$11,236</b>	<b>0.95</b>	<b>4.4</b>	<b>11.1</b>	<b>21.4%</b>	<b>49.5</b>	<b>27.2</b>	<b>6.8%</b>	<b>14.2%</b>	<b>0.1</b>
<b>Median</b>		<b>\$75.01</b>	<b>\$4,686</b>	<b>0.86</b>	<b>3.7</b>	<b>18.1</b>	<b>22.7%</b>	<b>33.3</b>	<b>24.0</b>	<b>6.5%</b>	<b>9.7%</b>	<b>0.1</b>

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\*Price to Earnings to Growth (PEG) multiples calculated using forward P/E ratios and forward EPS growth estimates

## Publicly Traded Companies

## Conglomerate Companies

Company Name	Ticker	Price at 6/30/17	Market Cap (USD \$M) 6/30/17	5 Year Beta	EV/Rev.	EV/ EBITDA	EBITDA Margin	LTM P/E	Forward P/E	Revenue Growth (from LTM)	EBITDA Growth (from LTM)	Forward Price to Earnings / Growth*
3M	MMM	\$208.19	\$124,339	1.08	4.4	15.4	28.6%	25.2	22.9	1.0%	0.8%	3.6
Agilent Technologies	A	59.31	19,059	1.22	4.3	19.0	22.7%	33.3	25.2	5.6%	12.7%	(2.4)
Abbott Laboratories	ABT	48.61	84,351	1.06	4.5	20.9	21.4%	54.6	19.1	8.5%	6.3%	(1.0)
Allergan	AGN	243.09	81,646	1.16	7.4	18.9	39.3%	NM	14.6	4.1%	-5.8%	nm
Baxter International	Bax	60.54	32,914	0.57	3.2	15.4	20.8%	18.0	26.4	2.1%	22.5%	(8.6)
Becton Dickinson	BDX	195.11	44,359	1.06	4.4	16.9	25.9%	32.4	20.0	0.1%	-0.4%	6.6
Boston Scientific Corporation	BSX	27.72	37,960	1.12	5.0	19.5	25.9%	89.0	21.9	8.9%	10.4%	(12.3)
Danaher	DHR	84.39	58,577	0.91	4.1	16.7	24.3%	28.8	21.0	25.6%	34.4%	87.2
Endo Health Solutions	ENDP	11.17	2,492	0.62	2.5	24.6	10.1%	NM	3.6	10.3%	-65.7%	nm
General Electric	GE	27.01	234,554	1.22	3.0	20.4	14.7%	25.0	15.2	0.4%	20.2%	(5.9)
Corning Life Sciences	GLW	30.05	27,653	1.41	3.0	10.7	27.9%	8.0	17.1	9.1%	21.9%	0.9
Hospira	HSP	3.37	107	(0.12)	0.4	8.8	4.9%	NM	16.3	-1.2%	-24.7%	nm
IDEX	IDXX	161.42	14,225	0.48	8.3	33.6	24.7%	59.8	52.2	7.7%	12.4%	3.9
Johnson & Johnson	JNJ	132.29	356,367	0.77	4.8	13.9	34.8%	22.2	18.4	2.8%	13.1%	1.8
Kimberly-Clark	KMB	129.11	45,825	0.78	2.9	12.8	22.7%	21.3	20.4	-0.6%	1.8%	2.9
Medtronic	MDT	88.75	120,614	1.05	4.7	15.2	31.0%	30.7	18.0	3.0%	5.5%	(8.4)
Pall	PLL	91.14	46,392	0.00	1.1	8.7	12.9%	0.0	0.0	1.7%	-8.8%	0.0
Stryker	SYK	138.78	51,871	0.81	4.7	17.3	27.4%	31.2	21.2	12.6%	13.1%	4.8
<b>Average</b>		<b>\$96.67</b>	<b>\$76,850</b>	<b>0.84</b>	<b>4.0</b>	<b>17.2</b>	<b>23.3%</b>	<b>32.0</b>	<b>19.6</b>	<b>5.6%</b>	<b>3.9%</b>	<b>4.9</b>
<b>Median</b>		<b>\$86.57</b>	<b>\$46,108</b>	<b>0.98</b>	<b>4.4</b>	<b>16.8</b>	<b>24.5%</b>	<b>28.8</b>	<b>19.5</b>	<b>3.6%</b>	<b>8.3%</b>	<b>0.9</b>

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