

# Quarterly Industry Update

As of December 31, 2015

Industry: Cardiovascular Equipment



## Industry Summary

Cogent Valuation identified Cardiovascular Equipment publicly traded companies, IPOs, and recent M&A transactions within the Cardiovascular Equipment industry, which provides a basis for market and transaction pricing that can be used by your firm in estimating market sentiment and its impact on your firm's value. Over the last year since December 31, 2014, the median 52-week share price return of the Cardiovascular Equipment industry was 14.1%. Between December 31, 2013 and December 31, 2015, the median EV/EBITDA multiple increased from 13.1 to 16.5. Furthermore, the median price-to-earnings multiple increased from 26.6 to 36.7 over the same period.

## Comparable Public Company Key Statistics

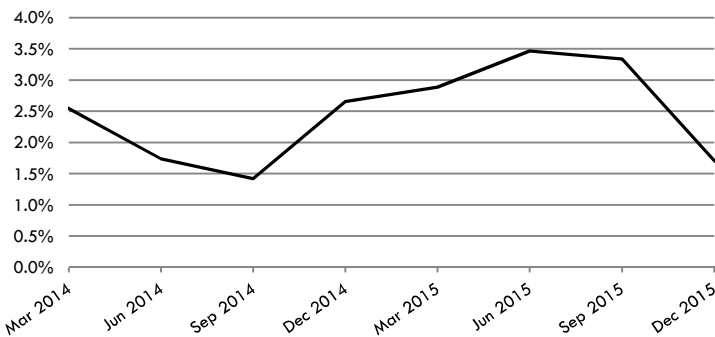
Median 52-Week Return	14.1%	Median EV/Revenue Multiple	3.8x	Median Price/Earnings Multiple	36.7x
Median 3-Year CAGR Return	23.0%	Median EV/EBITDA Multiple	16.5x	Median EV/Gross CF Multiple	31.2x

## Comparable Public Company Market Price Returns (As of December 31, 2015)

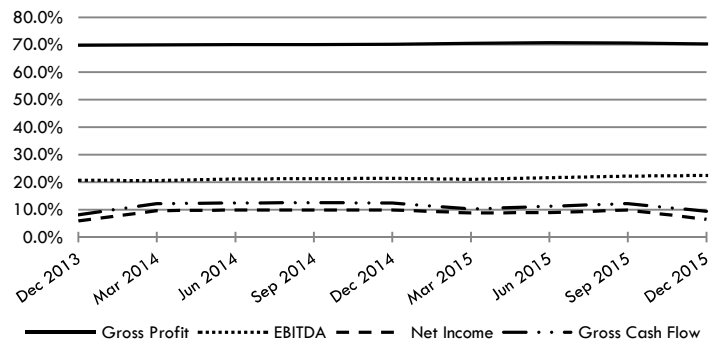
	YTD	3 Month	1 Year	2 Year	3 Year	5 Year	2015	2014	2013	2012	2011
ABIOMED, Inc.	137.2%	-2.7%	137.2%	83.7%	88.7%	56.5%	137.2%	42.3%	99.0%	-27.2%	92.2%
BioTelemetry, Inc.	16.5%	-4.6%	16.5%	21.3%	72.4%	20.1%	16.5%	26.3%	248.2%	-3.8%	-49.4%
Boston Scientific Corporation	39.2%	12.4%	39.2%	23.9%	47.6%	19.5%	39.2%	10.2%	109.8%	7.3%	-29.5%
Cardiovascular Systems Inc.	-49.7%	-4.5%	-49.7%	-33.6%	6.4%	5.3%	-49.7%	-12.3%	173.2%	27.4%	-15.5%
CR Bard Inc.	13.7%	1.7%	13.7%	18.9%	24.7%	15.6%	13.7%	24.4%	37.0%	14.3%	-6.8%
CryoLife Inc.	-4.9%	10.8%	-4.9%	-1.4%	20.1%	14.7%	-4.9%	2.2%	78.0%	29.8%	-11.4%
Edwards Lifesciences Corp.	24.0%	11.1%	24.0%	55.0%	20.5%	14.3%	24.0%	93.7%	-27.1%	27.5%	-12.5%
Medtronic plc	6.5%	14.9%	6.5%	15.8%	23.3%	15.7%	6.5%	25.8%	39.9%	7.2%	3.1%
St. Jude Medical Inc.	-5.0%	-2.1%	-5.0%	-0.1%	19.6%	7.6%	-5.0%	5.0%	71.4%	5.4%	-19.8%
Teleflex Incorporated	14.5%	5.8%	14.5%	18.3%	22.6%	19.6%	14.5%	22.3%	31.6%	16.3%	13.9%
The Spectranetics Corporation	-56.4%	27.7%	-56.4%	-22.4%	0.7%	23.9%	-56.4%	38.3%	69.3%	104.6%	39.9%
Vascular Solutions Inc.	26.6%	6.1%	26.6%	21.9%	29.6%	24.0%	26.6%	17.3%	46.5%	42.0%	-5.0%
<b>Median of Industry Public Companies</b>	<b>14.1%</b>	<b>6.0%</b>	<b>14.1%</b>	<b>18.6%</b>	<b>23.0%</b>	<b>17.6%</b>	<b>14.1%</b>	<b>23.4%</b>	<b>70.3%</b>	<b>15.3%</b>	<b>-9.1%</b>

(Multiple year periods are calculated as the average annual return.)

## Median Quarterly Revenue Growth of All Cardiovascular Equipment Companies



## Median Gross Profit, EBITDA, Net Income and Gross Cash Flow Margins



## Median Public Company Multiples of the Cardiovascular Equipment Industry

Date:	12/31/2013	3/31/2014	6/30/2014	9/30/2014	12/31/2014	3/31/2015	6/30/2015	9/30/2015	12/31/2015
EV/Revenues Multiple	3.5x	3.8x	3.7x	3.5x	3.9x	3.9x	4.2x	3.7x	3.8x
EV/EBITDA Multiple	13.1x	14.8x	13.9x	13.5x	14.0x	15.7x	16.1x	15.8x	16.5x
Price/Earnings Multiple	26.6x	20.7x	26.9x	19.6x	23.1x	26.7x	34.4x	35.4x	36.7x
EV/Gross Cash Flows Multiple	22.1x	22.4x	23.5x	17.4x	19.9x	22.8x	28.6x	31.9x	31.2x

This industry research is provided at no charge to Cogent Valuation's clients. Research or detailed information not covered in this report can be obtained for a fee. Contact Steven Kam at 415-392-0888 for additional information or questions in connection with this research report. Copyright © 2016 Cogent Valuation. All Rights Reserved.

# Quarterly Industry Update

As of December 31, 2015

Industry: Cardiovascular Equipment



## Industry Initial Public Offerings (dollars in millions, except share prices)

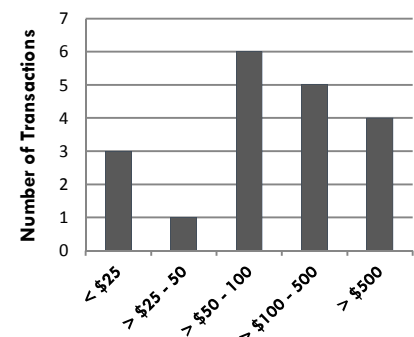
Offer Date	Company Name	Offer Price	Shares Offered	Amount Raised	Total Assets	Debt	LTM Revenues	LTM EBITDA	LTM Net Income	LTM Cash Flows
11/17/2011	Sphere Medical Holding PLC	\$1.46	15.1	\$22.1	\$1.5	\$3.8	\$0.0	(\$6.6)	(\$7.0)	(\$6.3)
4/18/2011	InspireMD, Inc.	\$1.50	7.0	\$10.4	\$4.4	\$1.5	\$4.9	(\$3.1)	(\$3.4)	(\$3.0)
2/10/2011	Kips Bay Medical, Inc.	\$8.00	2.1	\$16.5	\$7.2	\$0.0	\$0.1	(\$8.7)	(\$10.2)	(\$8.6)
3/18/2008	BioTelemetry, Inc.	\$18.00	4.5	\$81.0	\$103.0	\$2.8	\$73.0	\$5.2	(\$0.4)	\$8.9
6/14/2006	Volcano Corporation	\$8.00	6.8	\$54.4	\$62.0	\$31.1	\$95.3	(\$4.2)	(\$17.8)	\$0.5
12/12/2005	Lombard Medical Technologies Limited	\$2.82	14.4	\$47.0	\$11.8	\$7.4	\$0.1	\$0.0	(\$13.0)	\$1.3
8/5/2005	AtriCure, Inc.	\$12.00	4.0	\$48.0	\$12.4	\$0.0	\$22.9	(\$4.8)	(\$9.7)	(\$3.7)
8/11/2004	Stereotaxis Inc.	\$8.00	5.5	\$44.0	\$41.1	\$6.0	\$9.9	(\$29.8)	(\$30.5)	(\$29.2)
<b>Median of All IPOs</b>		<b>nm</b>	<b>nm</b>	<b>\$45.5</b>	<b>\$12.1</b>	<b>\$3.3</b>	<b>\$7.4</b>	<b>(\$4.5)</b>	<b>(\$9.9)</b>	<b>(\$3.4)</b>

nm: not meaningful

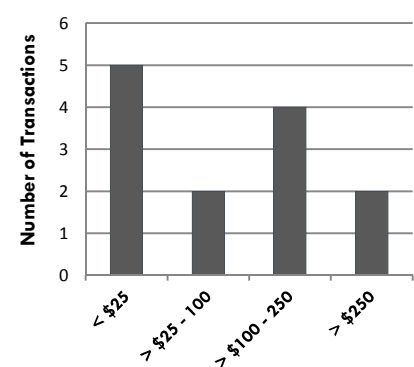
## Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions)

Transaction Date	Target	Acquirer	Transaction Size	% Bought	LTM Revenues	EV/Revenues
10/8/2015	Thoratec Corp.	SJM International, Inc.	\$3,696.3	100%	\$483.8	7.1x
9/28/2015	Lazarus Effect, Inc.	Medtronic plc	\$100.0	100%	N/A	N/A
7/30/2015	Altura Medical, Inc.	Lombard Medical, Inc.	\$49.0	100%	N/A	N/A
6/19/2015	CardioInsight Technologies	Medtronic plc	\$100.0	100%	N/A	N/A
5/30/2014	CardioMEMS, Inc.	St. Jude Medical Inc.	\$375.0	81%	N/A	N/A
2/20/2014	Oscor Inc., Lead Business	Sorin SpA	\$20.0	100%	N/A	N/A
12/1/2013	CircuLite, Inc.	Heartware International	\$401.8	100%	\$1.3	N/A
8/11/2013	Cardiacom	Medtronic	\$200.0	100%	\$50.0	4.0x
7/3/2012	eResearchTechnology	Genstar Capital	\$423.5	100%	\$193.7	1.9x
5/31/2012	SunTech Medical Group	Halma	\$57.0	100%	\$23.0	2.3x
4/25/2012	ZOLL Medical	Asahi Kasei	\$2,216.2	100%	\$544.3	3.9x
8/31/2011	Salient Surgical Technologies	Medtronic	\$452.0	91%	\$100.0	5.0x
8/31/2011	PEAK Surgical	Medtronic	\$96.0	81%	\$20.0	5.9x
12/21/2010	Clarient	GE Healthcare	\$597.9	100%	\$110.1	5.3x
12/21/2010	Biotel	CardioNet	\$11.6	100%	\$10.9	0.9x
12/3/2010	Cardiac Science	Opto Circuits	\$56.3	100%	\$145.9	0.3x
11/30/2010	Beijing Star Medical Devices	Lepu Medical Technology	\$22.6	100%	\$2.7	8.4x
11/17/2010	AGA Medical Holdings	St. Jude Medical	\$1,310.9	100%	\$209.7	6.2x
11/4/2010	International Technidyne	Nexus Dx	\$55.0	100%	N/A	N/A
<b>Median of the 19 M&amp;A Transaction Targets</b>			<b>\$100.0</b>	<b>100%</b>	<b>\$100.0</b>	<b>4.5x</b>

### Size of M&A Transactions



### LTM Revenues Reported



### Definitions of Financial Terms Used in this Quarterly Industry Update:

Enterprise Value (EV): Market Value of Equity + Market Value of Debt - Cash

Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA): Profitability metric sometimes also referred to as operating profit or operating earnings.

Gross Cash Flows: Net Income + Depreciation and Amortization Expense

Latest Twelve Months (LTM): Financial information is as of the latest twelve months through the date of this Quarterly Industry Update.

# Quarterly Industry Update

As of December 31, 2015

## Medical Device Industry Aggregates

### Comparable Public Company Key Statistics

Median 52-Week Return	-4.9%	Median EV/Revenue Multiple	3.6x	Median Price/Earnings Multiple	33.6x
Median Year-to-Date Return	-4.9%	Median EV/EBITDA Multiple	13.8x	Median EV/Gross CF Multiple	35.2x

### Comparable Public Company Market Price Returns (As of December 31, 2015)

	YTD	3 Month	1 Year	2 Year	3 Year	5 Year	2015	2014	2013	2012	2011
ABIOMED, Inc.	137.2%	-2.7%	137.2%	83.7%	88.7%	56.5%	137.2%	42.3%	99.0%	-27.2%	92.2%
AngioDynamics Inc.	-36.1%	-8.0%	-36.1%	-15.9%	3.4%	-4.6%	-36.1%	10.8%	56.1%	-25.8%	-3.6%
Atossa Genetics, Inc.	-77.6%	-58.4%	-77.6%	-62.9%	-56.5%	N/A	-77.6%	-38.4%	-40.5%	N/A	N/A
AtriCure, Inc.	12.4%	2.4%	12.4%	9.6%	48.2%	16.9%	12.4%	6.9%	170.7%	-37.8%	8.1%
Becton, Dickinson and Company	10.7%	16.2%	10.7%	18.1%	25.4%	12.8%	10.7%	25.9%	41.3%	4.6%	-11.6%
BIOLASE, Inc.	-68.0%	-6.5%	-68.0%	-45.3%	-22.5%	-12.2%	-68.0%	-6.6%	56.1%	-26.6%	52.8%
Boston Scientific Corporation	39.2%	12.4%	39.2%	23.9%	47.6%	19.5%	39.2%	10.2%	109.8%	7.3%	-29.5%
Cardiovascular Systems Inc.	-49.7%	-4.5%	-49.7%	-33.6%	6.4%	5.3%	-49.7%	-12.3%	173.2%	27.4%	-15.5%
CAS Medical Systems Inc.	7.3%	41.6%	7.3%	2.0%	-6.3%	-11.2%	7.3%	-2.9%	-20.9%	23.0%	-45.4%
CryoLife Inc.	-4.9%	10.8%	-4.9%	-1.4%	20.1%	14.7%	-4.9%	2.2%	78.0%	29.8%	-11.4%
Cutera, Inc.	19.8%	-2.2%	19.8%	12.1%	12.4%	9.1%	19.8%	4.9%	13.1%	20.8%	-10.1%
Cytosorbents Corporation	-44.0%	-11.7%	-44.0%	33.5%	19.7%	9.7%	-44.0%	218.4%	-3.8%	-18.8%	14.4%
Daxor Corp.	8.9%	-12.1%	8.9%	5.5%	0.0%	-3.9%	8.9%	2.2%	-10.1%	-16.5%	-1.6%
Delcath Systems, Inc.	-58.7%	11.1%	-58.7%	-65.0%	-70.6%	-68.3%	-58.7%	-70.3%	-79.3%	-59.7%	-68.9%
DexCom, Inc.	48.8%	-4.6%	48.8%	52.1%	82.0%	43.1%	48.8%	55.5%	160.6%	46.0%	-31.8%
Endologix Inc.	-35.3%	-19.2%	-35.3%	-24.7%	-11.4%	6.7%	-35.3%	-12.3%	22.5%	24.0%	60.6%
EnteroMedics Inc.	-90.8%	-50.0%	-90.8%	-74.7%	-64.0%	-46.9%	-90.8%	-30.4%	-27.1%	64.7%	-44.8%
Escalon Medical Corp.	-34.2%	-8.6%	-34.2%	-26.6%	3.7%	-6.7%	-34.2%	-18.3%	107.3%	-5.0%	-33.3%
Globus Medical, Inc.	17.0%	34.7%	17.0%	17.4%	38.4%	N/A	17.0%	17.8%	92.4%	N/A	N/A
Greatbatch, Inc.	6.5%	-6.9%	6.5%	8.9%	31.2%	16.8%	6.5%	11.4%	90.4%	5.2%	-8.5%
Heartware International Inc.	-31.4%	-3.7%	-31.4%	-26.7%	-15.6%	-10.5%	-31.4%	-21.8%	11.9%	21.7%	-21.2%
InspireMD, Inc.	-88.7%	-46.7%	-88.7%	-81.1%	-71.7%	N/A	-88.7%	-68.4%	-36.9%	-55.3%	N/A
LDR Holding Corporation	-23.4%	-27.3%	-23.4%	3.1%	N/A	N/A	-23.4%	38.9%	N/A	N/A	N/A
LeMaitre Vascular, Inc.	125.5%	41.5%	125.5%	46.8%	44.3%	20.6%	125.5%	-4.5%	39.5%	-3.0%	-12.6%
Merit Medical Systems, Inc.	7.3%	-22.3%	7.3%	8.7%	10.2%	8.0%	7.3%	10.1%	13.2%	3.9%	5.7%
MGC Diagnostics Corporation	3.1%	0.0%	3.1%	-27.8%	3.8%	4.9%	3.1%	-49.4%	114.6%	13.0%	0.4%
NeuroMetrix Inc.	-74.6%	-43.9%	-74.6%	-58.8%	-42.4%	-54.2%	-74.6%	-33.2%	12.5%	-65.4%	-69.4%
NuVasive, Inc.	14.7%	12.2%	14.7%	29.4%	51.8%	16.1%	14.7%	45.9%	109.1%	22.8%	-50.9%
Nxstage Medical, Inc.	22.2%	38.9%	22.2%	48.0%	24.9%	-2.5%	22.2%	79.3%	-11.1%	-36.7%	-28.5%
St. Jude Medical Inc.	-5.0%	-2.1%	-5.0%	-0.1%	19.6%	7.6%	-5.0%	5.0%	71.4%	5.4%	-19.8%
Stryker Corporation	-1.5%	-1.2%	-1.5%	11.2%	19.2%	11.6%	-1.5%	25.5%	37.1%	10.3%	-7.4%
Sunshine Heart Inc.	-68.2%	-38.6%	-68.2%	-62.7%	-39.5%	N/A	-68.2%	-56.3%	59.4%	N/A	N/A
Tandem Diabetes Care, Inc.	-7.0%	34.1%	-7.0%	-32.3%	N/A	N/A	-7.0%	-50.7%	N/A	N/A	N/A
The Cooper Companies Inc.	-17.2%	-9.8%	-17.2%	4.1%	13.2%	19.0%	-17.2%	30.9%	33.9%	31.1%	25.2%
TransEnterix, Inc.	-14.8%	9.7%	-14.8%	-45.2%	31.1%	-21.8%	-14.8%	-64.7%	650.0%	-63.3%	-64.7%
Utah Medical Products Inc.	-2.5%	8.7%	-2.5%	1.2%	17.5%	16.8%	-2.5%	5.1%	58.6%	33.5%	0.4%
Varian Medical Systems, Inc.	-6.6%	9.5%	-6.6%	2.0%	4.8%	3.1%	-6.6%	11.4%	10.6%	4.6%	-3.1%
Vascular Solutions Inc.	26.6%	6.1%	26.6%	21.9%	29.6%	24.0%	26.6%	17.3%	46.5%	42.0%	-5.0%
<b>Median of Industry Public Companies</b>	<b>-4.9%</b>	<b>-2.4%</b>	<b>-4.9%</b>	<b>2.0%</b>	<b>12.8%</b>	<b>7.8%</b>	<b>-4.9%</b>	<b>4.9%</b>	<b>43.9%</b>	<b>5.2%</b>	<b>-10.8%</b>

(Multiple year periods are calculated as the average annual return.)

# Quarterly Industry Update

As of December 31, 2015

## Medical Device Industry Aggregates



### Median Public Company Multiples of the Medical Device Industry Aggregates

Date:	12/31/2013	3/31/2014	6/30/2014	9/30/2014	12/31/2014	3/31/2015	6/30/2015	9/30/2015	12/31/2015
EV/Revenues Multiple	2.8x	3.0x	3.0x	2.8x	3.4x	3.6x	3.8x	3.1x	3.6x
EV/EBITDA Multiple	13.6x	14.2x	12.9x	11.9x	13.0x	14.0x	14.0x	13.8x	13.8x
Price/Earnings Multiple	31.1x	32.5x	29.5x	29.5x	31.8x	31.6x	33.2x	34.3x	33.6x
EV/Gross Cash Flows Multiple	23.0x	25.2x	22.4x	22.7x	21.7x	26.1x	30.1x	24.2x	35.2x

### Industry Initial Public Offerings - Medical Device Industry Aggregates (dollars in millions, except share prices)

Offer Date	Company Name	Offer Price	Shares Offered	Amount Raised	Total Assets	Debt	LTM Revenues	LTM EBITDA	LTM Net Income	LTM Cash Flows
9/17/2015	Penumbra, Inc.	\$30.00	4.0	\$120.0	\$129.1	\$0.0	\$149.1	\$2.0	\$0.4	\$3.1
7/7/2015	Biocorp Production	\$10.12	1.0	\$9.7	\$6.5	\$4.3	\$2.0	(\$2.6)	\$0.0	(\$2.6)
6/4/2015	EndoChoice Holdings, Inc.	\$15.00	6.4	\$95.3	\$102.7	\$39.5	\$64.3	(\$39.7)	(\$58.0)	(\$34.1)
1/30/2015	Avinger, Inc.	\$13.00	5.0	\$65.0	\$23.1	\$32.7	\$11.5	(\$23.9)	(\$32.4)	(\$22.4)
12/19/2014	Medovex Corp.	\$5.75	1.4	\$8.0	\$2.6	\$0.0	\$0.0	(\$0.7)	(\$0.7)	(\$0.7)
11/5/2014	Nevro Corp.	\$18.00	7.0	\$126.0	\$62.9	\$0.0	\$26.6	(\$26.5)	(\$26.2)	(\$26.5)
5/7/2014	K2M Group Holdings, Inc.	\$15.00	8.8	\$132.4	\$296.9	\$43.2	\$155.6	(\$8.1)	(\$37.9)	(\$1.6)
4/15/2014	TriVascular Technologies, Inc.	\$12.00	6.5	\$78.0	\$64.7	\$44.3	\$19.5	(\$42.9)	(\$50.3)	(\$41.9)
11/13/2013	Tandem Diabetes Care, Inc.	\$15.00	8.0	\$120.0	\$48.6	\$29.3	\$21.0	(\$37.1)	(\$48.1)	(\$34.2)
10/8/2013	LDR Holding Corporation	\$15.00	5.0	\$75.0	\$78.7	\$53.8	\$98.3	\$2.5	(\$10.3)	\$5.6
8/2/2012	Globus Medical, Inc.	\$12.00	8.3	\$100.0	\$354.8	\$0.0	\$347.9	\$121.4	\$63.9	\$138.8
6/27/2012	Tesaro, Inc.	\$13.50	6.0	\$81.0	\$93.0	\$0.0	\$0.0	(\$23.2)	(\$23.2)	(\$23.2)
4/30/2012	Supernus Pharmaceuticals, Inc.	\$5.00	3.4	\$50.0	\$53.7	\$29.5	\$0.8	(\$36.9)	\$53.8	(\$36.2)
2/10/2011	Kips Bay Medical, Inc.	\$8.00	2.1	\$16.5	\$7.2	\$0.0	\$0.1	(\$8.7)	(\$10.2)	(\$8.6)
2/2/2011	Tornier N.V.	\$19.00	8.8	\$166.3	\$499.2	\$133.8	\$223.4	\$13.2	(\$62.1)	\$28.6
11/23/2010	Anacor Pharmaceuticals, Inc.	\$5.00	12.0	\$60.0	\$20.4	\$9.1	\$31.1	(\$4.3)	(\$6.5)	(\$3.6)
11/22/2010	Zogenix, Inc.	\$4.00	7.1	\$56.0	\$55.0	\$35.9	\$14.6	(\$55.4)	(\$77.6)	(\$54.1)
8/13/2010	Electromed, Inc.	\$4.00	1.7	\$6.8	\$13.4	\$3.8	\$14.2	\$2.3	\$1.0	\$2.6
8/2/2010	Trius Therapeutics, Inc.	\$5.00	4.7	\$50.0	\$18.7	\$19.8	\$5.4	(\$18.8)	(\$20.4)	(\$18.1)
3/24/2010	CorMedix, Inc.	\$6.50	1.9	\$12.5	\$2.2	\$13.8	\$0.0	(\$6.0)	(\$8.1)	(\$6.0)
3/11/2010	AVEO Pharmaceuticals, Inc.	\$9.00	9.0	\$81.0	\$59.8	\$19.7	\$20.7	(\$39.9)	(\$44.1)	(\$38.6)
<b>Median of All IPOs</b>		<b>nm</b>	<b>nm</b>	<b>\$75.0</b>	<b>\$55.0</b>	<b>\$19.7</b>	<b>\$19.5</b>	<b>(\$8.7)</b>	<b>(\$20.4)</b>	<b>(\$8.6)</b>

**Disclosures and Limitations:** This research report is for informational and discussion purposes only. Information presented herein is not investment advice of any kind to any person and does not constitute a recommendation as to the purchase or sale of any interests or as to any other course of action. General, financial, and statistical information concerning the details of this report and related industry are from sources Cogent Valuation believes to be reliable. Cogent Valuation has accurately reflected such information in this research report; however, Cogent Valuation makes no representation as to the sources' accuracy or completeness and has accepted this information without further verification. Neither all nor any part of the content of this report may be conveyed to the public through advertising, public relations, news, sales, mail, direct transmittal, or other media without the prior written consent of Cogent Valuation. Cogent Valuation's research is as of the date reported herein. Cogent Valuation has no affiliation with any of the companies comprising the industry used as a basis for research in this report, nor does Cogent Valuation hold any investments in the companies listed herein. The content of this report may be used, in part, as a basis for any work that Cogent Valuation performs for you in the future at the sole discretion of Cogent Valuation. THIS REPORT IS NOT TO BE USED OR CONSIDERED UNDER ANY CIRCUMSTANCE BY ANYONE AS INVESTMENT ADVICE. This industry research is provided at no charge to Cogent Valuation's clients. Research or detailed information not covered in this report can be obtained for a fee. Contact Steven Kam at 415-392-0888 for additional information or questions in connection with this research report. Copyright © 2016 Cogent Valuation. All Rights Reserved.