

Oncology Pharmaceutical

INDUSTRY SUMMARY

COGENT VALUATION identified **Oncology Pharmaceutical** publicly traded companies, IPOs, and recent M&A transactions within the Oncology Pharmaceutical 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, 2016, the median 52-week share price return of the Oncology Pharmaceutical industry was 26.5%. Between December 31, 2015 and December 31, 2017, the median EV/EBITDA multiple decreased from 22.6 to 11.5. Furthermore, the median price-to-earnings multiple decreased from 29.8 to 20.6 over the same period. The median revenue growth and EBITDA margins for the industry for the quarter were 3.7% and -34.8%, respectively.

Public Company Key Statistics

Median 52-Week
Return

26.5%

Median 3-Year CAGR
Return

-3.5%

Median EV/Revenue
Multiple

7.0x

Median EV/EBITDA
Multiple

7x

Median Price/Earnings
Multiple

20.6x

Median EV/Gross CF
Multiple

11.1x

Comparable Public Company Market Price Returns as of December 31, 2017

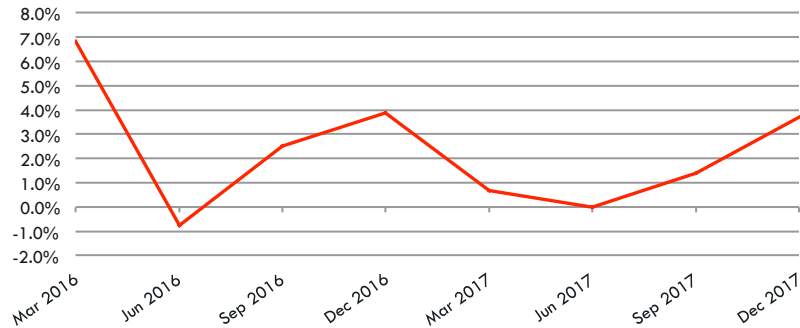
	YTD	3 Month	1 Year	2 Year	3 Year	2016	2015	2014
Affimed N.V.	-57.3%	-40.6%	-17.3%	-61.0%	N/A	-74.7%	14.8%	N/A
Bellicum Pharmaceuticals, Inc.	-35.6%	-28.5%	-9.9%	-25.9%	N/A	-32.8%	-12.0%	N/A
Calithera Biosciences, Inc.	4.4%	-25.5%	300.3%	44.2%	N/A	-57.6%	-62.1%	N/A
Globelimmune, Inc.	-70.0%	-64.2%	-73.7%	-55.8%	N/A	-92.5%	-49.0%	N/A
Incyte Corporation	-6.5%	9.0%	57.4%	9.9%	30.7%	-7.5%	48.3%	44.4%
Kite Pharma, Inc.	72.0%	92.8%	107.3%	30.4%	53.0%	-27.2%	6.8%	N/A
Loxo Oncology, Inc.	-13.0%	-15.1%	245.9%	110.9%	N/A	12.9%	142.1%	N/A
Luye Pharma Group Ltd.	-64.0%	-55.1%	-10.5%	-28.4%	N/A	-43.1%	-19.1%	N/A
Merrimack Pharmaceuticals, Inc.	88.3%	56.8%	-77.0%	-68.3%	-44.6%	-48.4%	-30.1%	112.0%
Nektar Therapeutics	9.2%	18.5%	37.4%	25.0%	15.1%	-27.2%	8.7%	36.6%
SciClone Pharmaceuticals, Inc.	77.3%	39.8%	-15.8%	5.8%	27.9%	17.4%	5.0%	73.8%
Seattle Genetics, Inc.	9.1%	8.0%	28.0%	3.4%	10.6%	17.6%	39.7%	-19.5%
Spectrum Pharmaceuticals, Inc.	-57.3%	-40.6%	13.4%	4.4%	-2.9%	-26.5%	-13.0%	-21.7%
Sucampo Pharmaceuticals, Inc.	-35.6%	-28.5%	-4.3%	-20.1%	15.0%	-21.6%	21.1%	51.9%
Vertex Pharmaceuticals Incorporated	4.4%	-25.5%	49.8%	2.2%	10.8%	-41.5%	5.9%	59.9%
Median of Industry Public Companies	-70.0%	-64.2%	13.4%	3.4%	15.0%	-27.2%	5.9%	48.2%

Multiple year periods are calculated as the average annual return.

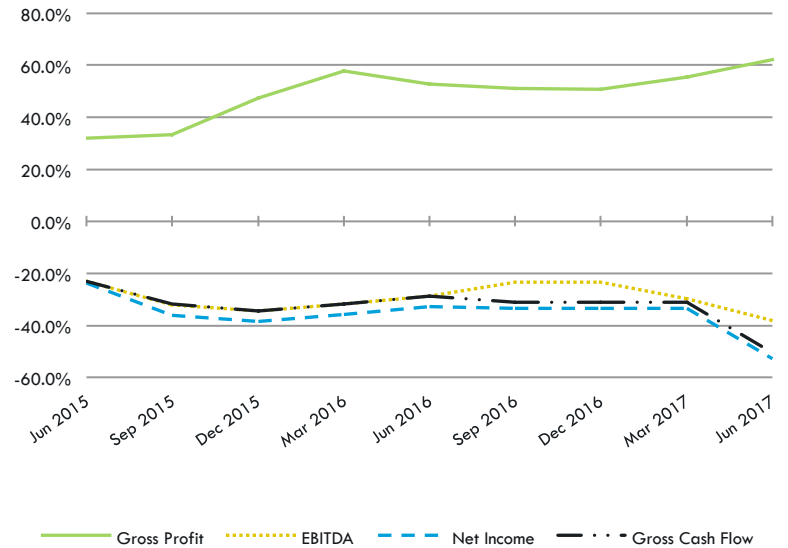
■ Highest Return
 ■ Lowest Return
 ■ Median Return

Industry Revenue Growth and Profit Margins for the Past Two Years

Median Quarterly Revenue Growth of All Oncology Pharma Companies



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



Public Company Median Multiples by Quarter

	12/31/17	6/30/17	3/31/17	12/31/16	9/30/16	6/30/16	3/31/16	12/31/15
EV/Revenues Multiple	3.8x	4.6x	4.1x	3.8x	3.6x	3.8x	3.3x	3.7x
EV/EBITDA Multiple	17.3x	19.3x	16.0x	15.9x	17.3x	17.2x	15.4x	15.8x
Price/Earnings Multiple	62.1x	48.0x	29.9x	39.9x	33.1x	26.1x	33.1x	39.1x
EV/Gross Cash Flows Multiple	42.1x	36.9x	30.1x	30.7x	33.4x	27.3x	22.2x	29.7x

 Highest Multiple

 Lowest Multiple

 Median Multiple

Industry Initial Public Offerings—Industry: Oncology Pharmaceutical (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
11/3/16	BerGenBio ASA	\$0.15	35.0	\$5.4	\$2.2	\$0.7	\$0.2	(\$15.3)	(\$15.1)	(\$15.2)
8/2/12	Inventiva S.A.	\$12.00	8.3	\$100.0	\$354.8	\$0.0	\$347.9	(\$11.1)	(\$7.0)	(\$10.2)
6/27/12	Alligator Bioscience AB (publ)	\$13.50	6.0	\$81.0	\$93.0	\$0.0	\$0.0	(\$40.2)	(\$68.5)	(\$37.5)
4/30/12	NOXXON Pharma N.V.	\$5.00	3.4	\$50.0	\$53.7	\$29.5	\$0.8	N/A	N/A	N/A
2/10/11	Noxopharm Limited	\$8.00	2.1	\$16.5	\$7.2	\$0.0	\$0.1	\$157.7	\$86.4	\$177.9
2/2/11	Race Oncology Limited	\$19.00	8.8	\$166.3	\$787.6	\$133.8	\$884.5	\$157.7	\$86.4	\$176.7
5/18/16	Merus N.V.	\$5.00	5.5	\$55.0	\$786.5	\$9.1	\$865.3	\$156.2	\$87.5	\$175.2
	Median IPO	nm	nm	\$45.3	\$584.9	\$71.3	\$459.7	\$72.5	\$39.7	\$82.5

Multiple year periods are calculated as the average annual return.

■ Highest Return
 ■ Lowest Return
 ■ Median Return

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

Transaction Date	Target	Acquirer	Transaction Size	% Bought	LTM Revenues	EV/ Revenues
12/22/17	Topera, Inc.	Ipsen S.A.	\$1,025.0	100%	N/A	N/A
10/1/16	Triangle BioSystems, Inc.	Taro Pharmaceuticals Inc.	\$2.0	100%	\$2.3	0.9x
2/20/15	NuPathe, Inc.	Takeda Pharmaceuticals	\$5,451.5	100%	\$186.2	27.6x
4/26/13	Victhom Human Bionics	Medivir AB	\$195.8	100%	N/A	N/A
1/28/13	NeuroLogica Corp.	Celldex Therapeutics, Inc.	\$373.3	100%	N/A	N/A
11/1/12	Surpass Medical Ltd.	Verastem, Inc.	\$28.0	100%	N/A	N/A
10/21/16	Genesis Care Ltd	Macquarie Group Limited	\$1,700.0	74%	N/A	N/A
9/27/16	Medivation, Inc.	Pfizer Inc.	\$14,330.9	100%	\$1,021	13.6x
9/7/16	Sequenom Inc.	Laboratory Corp. of America	\$426.1	100%	\$114.6	3.2x
7/14/16	RedoxTherapies Inc.	Juno Therapeutics, Inc.	\$10.0	100%	N/A	N/A
7/5/16	Cormorant Pharmaceuticals AB	Bristol-Myers Squibb	\$520.0	100%	N/A	N/A

■ USA
 ■ International
 ■ Highest
 ■ Lowest
 ■ Median

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

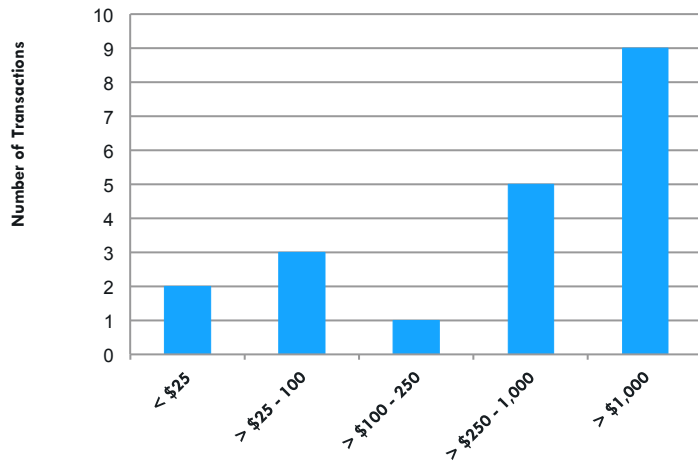
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Transaction Date	Target	Acquirer	Transaction Size	% Bought	LTM Revenues	EV/ Revenues
6/3/17	Baxalta Incorporated	Shire plc	\$36,219.9	100%	\$6,148	5.7x
12/4/15	DARA BioSciences, Inc.	Midatech Pharma Plc	\$30.7	100%	\$2.4	8.8x
10/7/15	AstraZeneca PLC, Caprelsa	Genzyme Corporation	\$300.0	100%	\$48.0	6.3x
7/23/15	Sigma-Tau Pharma	Baxter International Inc.	\$900.0	100%	\$100.0	9.0x
5/26/15	Pharmacyclics, Inc.	AbbVie Inc.	\$21,053.4	100%	\$816.1	24.7x
3/20/15	EUSA Pharma, Inc.	Essex Woodlands Health	\$34.0	100%	\$27.0	1.3x
2/28/14	Paladin Labs Inc.	Endo International plc	\$1,777.9	100%	\$263.0	5.8x
12/4/15	Agila Specialties Private	Mylan, Inc.	\$1,850.0	100%	\$255.0	7.3x
6/3/16	Baxalta Incorporated	Shire plc	\$36,219.9	100%	\$186.2	7.3x
Median of the 19 M&A Transaction Targets			\$30.7	100%	\$182.2	5.7x

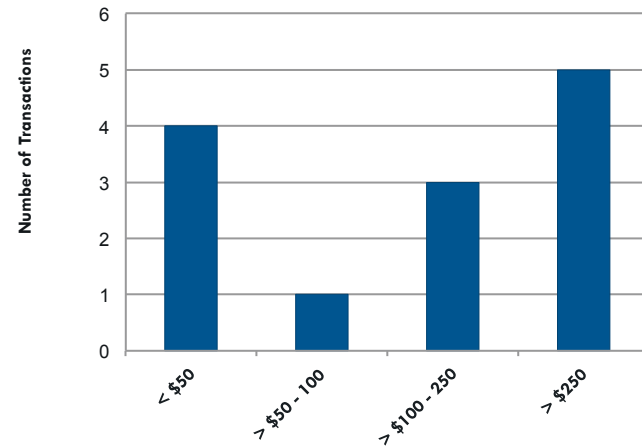
USA
 International
 Highest
 Lowest
 Median

Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions) as of December 31, 2017

Size of M&A Transactions



LTM Revenues Reported



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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.

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