Q4: Quarterly Industry Update

Inflammation Pharmaceuticals

INDUSTRY SUMMARY

COGENT VALUATION identified **Inflammation Pharma** publicly traded companies, IPOs, and recent M&A transactions within the Inflammation Pharma 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, 2017, the median 52-week share price return of the Inflammation Pharma industry was -25.6%. Between December 31, 2016 and December 31, 2018, the median EV/EBITDA multiple decreased from 11.3 to 10.3. However, the median price-to-earnings multiple increased from 31.9 to 33.2 over the same period. The median revenue growth and EBITDA margins for the industry for the quarter were 1.0% and 0.0%, respectively.

Public Company	
Key Statistics	

Return	
-25	.6%

Median 52-Week

Median EV/EBITDA Multiple

10.3x

Median 3-Year CAGR Return

-13.8%

Median Price/Earnings Multiple

33.2x

Median EV/Revenue Multiple

cogent

FINANCIAL OPINIONS

valuation

5.0x

Median EV/Gross CF Multiple

42.8x

| 1

Comparable Public Company Market Price Returns as of December 31, 2018

	YTD	3 Month	1 Year	2 Year	3 Year	2016	2015	2014
Abbott Laboratories	28.5%	5.0%	48.6%	15.2%	8.7%	-14.5%	-0.2%	17.5%
Amgen Inc.	19.2%	-2.0%	18.9%	16.1%	9.9%	-9.9%	1.9%	39.6%
Ampio Pharmaceuticals, Inc.	-87.5%	-16.5%	352.1%	-54.0%	-44.3%	-74.3%	2.0%	-51.9%
Aquinox Pharmaceuticals, Inc.	-75.1%	19.7%	-28.8%	0.4%	28.7%	32.3%	66.4%	N/A
Celgene Corporation	-14.2%	-14.5%	-9.8%	16.1%	15.4%	-3.3%	7.1%	32.4%
Concert Pharmaceuticals, Inc.	-42.6%	-11.5%	151.4%	-11.4%	5.4%	-45.8%	42.4%	N/A
Gilead Sciences, Inc.	7.8%	5.2%	0.0%	-9.2%	-8.7%	-29.2%	7.4%	25.5%
Immunomedics, Inc.	28.9%	-9.6%	340.3%	185.1%	55.5%	19.5%	-36.0%	4.3%
Ocular Therapeutix, Inc.	54.6%	46.3%	-46.8%	-33.7%	-25.5%	-10.7%	-60.2%	N/A
Omeros Corporation	25.6%	-42.5%	95.9%	40.5%	19.3%	-36.9%	-36.5%	119.5%
Pfizer Inc.	21.7%	-2.0%	11.5%	6.6%	6.5%	0.6%	3.6%	1.7%
Portola Pharmaceuticals, Inc.	-45.3%	-32.9%	116.9%	12.6%	28.8%	-56.4%	81.7%	10.0%
Median of Industry Public Companies	25.6%	-5.8%	33.8%	9.6%	9.3%	-12.6%	2.8%	17.5%

Multiple year periods are calculated as the average annual return.



Lowest Return

Median Return

Industry Revenue Growth and Profit Margins for the Past Two Years



Median Public Companies

	12/31/18	9/30/18	6/30//18	3/31/18	12/31/17	9/30/17	3/31/17	12/31/15
EV/Revenues Multiple	5.0x	4.8x	4.9x	4.4x	4.4x	4.4x	4.7x	4.9x
EV/EBITDA Multiple	10.3x	11.1x	11.3x	11.7x	11.2x	11.2x	10.6x	11.9x
Price/Earnings Multiple	33.2x	22.9x	20.2x	28.8x	27.3x	27.3x	15.1x	21.4x
EV/Gross Cash Flows Multiple	42.8x	27.3x	23.9x	26.6x	25.4x	25.4x	13.6x	17.9x

Industry Initial Public Offerings—Inflammation Pharmaceuticals (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
6/29/18	Calliditas Therapeutics AB (publ)	\$5.02	4.3	\$75.0	\$62.2	\$13.8	\$0.0	(\$13.4)	(\$4.3)	(\$2.6)
11/8/17	InflaRx N.V.	\$15.00	6.0	\$60.5	\$64.6	\$0.0	\$0.0	(\$16.2)	(\$3.1)	\$1.4
7/26/17	Sienna Biopharmaceuticals, Inc.	\$15.00	5.0	\$84.0	\$39.8	\$15.5	\$0.0	(\$28.1)	(\$6.1)	(\$1.7)
7/19/17	Kala Pharmaceuticals, Inc.	\$15.00	5.5	\$122.1	\$134.0	\$0.0	\$0.0	(\$36.9)	\$6.4	\$9.2
1/25/17	AnaptysBio, Inc.	\$15.00	6.0	\$6.2	\$3.2	\$4.3	\$16.7	(\$2.8)	(\$13.7)	(\$11.6)
5/25/16	Reata Pharmaceuticals, Inc.	\$11.00	4.3	\$68.2	\$6.9	\$14.0	\$49.7	(\$0.1)	(\$21.9)	(\$20.9)
6/29/17	Median of all IPOs	nm	6.0	\$71.6	\$51.0	\$9.1	\$8.3	(\$9.6)	(\$5.2)	(\$2.1)

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
10/1/18	TxCell S.A.	Sangamo Therapeutics, Inc.	\$53.4	98%	\$60.7	33.5x
12/1/17	Cleveland HeartLab, Inc.	Quest Diagnostics Inc.	\$94.0	100%	\$2,322	4.3x
8/3/17	Confluence Life Sciences, Inc.	Aclaris Life Sciences, Inc.	\$109.4	100%	\$135.3	4.1x
6/10/16	Skyepharma PLC	Vectura Group plc	\$615.4	100%	\$16.7	15.3x
7/1/15	Icagen, Inc.	N/A	\$11.0	100%	\$10.1	4.8x
5/1/15	Cellular Dynamics	Fujifilm Medical	\$289.1	100%	\$41.5	0.8x
4/13/15	Innocutis Medical, LLC	Cipher Pharmaceuticals	\$48.5	100%	\$160.3	3.0x
11/18/13	Cisbio Bioassays	Argos Soditic	\$34.0	100%	\$29.7	1.8x
6/5/12	ISTA Pharmaceuticals, Inc.	Bausch & Lomb	\$551.5	100%	\$89.1	1.3x
8/31/09	Idaman Pharma	Pharmaniaga Bhd	\$53.4	98%	\$60.7	33.5x
4/29/09	Cleveland HeartLab, Inc.	Medivir AB	\$28.6	100%	\$12.0	2.4x
12/15/08	Amgen Inc.	Biovitrum AB	\$150.3	100%	\$70.0	2.1x

USA Inte

International

Highest Lowest

Median

(Continued on next page)

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

(Continued from previous page)

Transaction Date	Target	Acquirer	Transaction Size	% Bought	LTM Revenues	EV/ Revenues
8/3/17	Confluence Life Sciences, Inc	c. Shire Limited	\$396.0	84%	\$14.2	31.3x
7/29/16	Meda AB	MBK Partners	\$239.1	77%	\$75.9	3.7x
6/10/16	Skyepharma PLC	Genstar Capital, LLC	\$700.8	87%	\$381.9	2.0x
7/1/15	lcagen, Inc.	Genentech, Inc.	\$921.7	100%	\$60.9	12.4x
5/1/15	Cellular Dynamics	Bioprogress plc	\$456.5	100%	\$18.9	24.2x
4/13/15	Innocutis Medical, LLC	Actavis Group ehf.	\$30.8	51%	\$19.1	3.2x
11/18/13	Cisbio Bioassays	Abbott Laboratories	\$4,190.9	100%	\$849.3	4.3x
11/24/06	ISTA Pharmaceuticals, Inc.	Recordati SpA	\$57.4	100%	\$49.7	1.2x
	Median of the 20 M&A Trar	nsaction Targets	\$264.1	100%	\$46.4	3.7x

USA

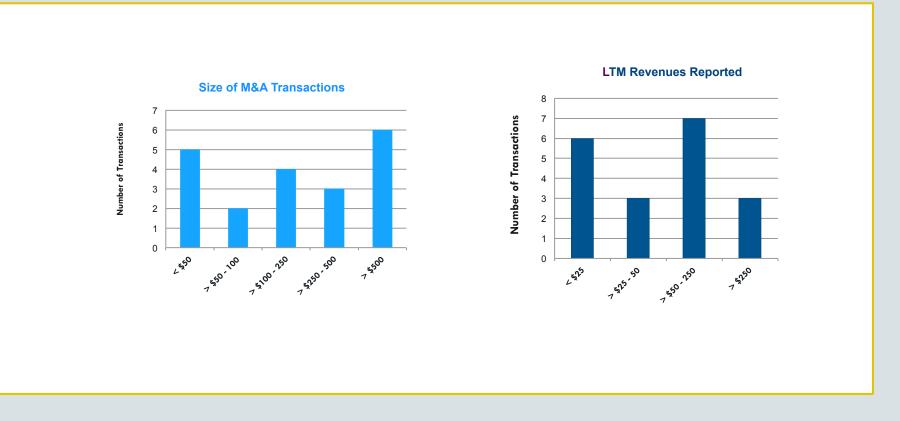
International

Highest Lowest

Median

| 7

Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions) as of December 31, 2018



| 8



COGENT VALUATION is a nationally recognized full service business valuation firm that has provided independent valuation and financial advisory opinions in thousands of situations since 1991. These assignments include the valuation of companies and pass-through entities, their securities, and their intangible assets ranging in size from small, closely-held businesses and start-ups, to corporations with market values over a billion dollars, covering almost every industry and all types of transactions. With the collective backgrounds of our managing directors and professional staff, Cogent Valuation brings substantial large deal experience to bear on our middle market transaction opinions. Cogent Valuation utilizes proprietary research, intensive due diligence, and the experience and insights of its professionals to produce thoughtful, well-documented opinions that have consistently withstood the scrutiny of clients and their advisors, investors, regulators, and courts.

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 or kam@cogentvaluation.com** for additional information or questions in connection with this research report.



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.

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.