

Quarterly Industry Update

As of March 31, 2016

Industry: 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 March 31, 2015, the median 52-week share price return of the Oncology Pharmaceutical industry was -29.7%. Between March 31, 2014 and March 31, 2016, the median EV/EBITDA multiple decreased from 19.7 to 9.2. Furthermore, the median price-to-earnings multiple decreased from 34.7 to 18.5 over the same period.

Comparable Public Company Key Statistics

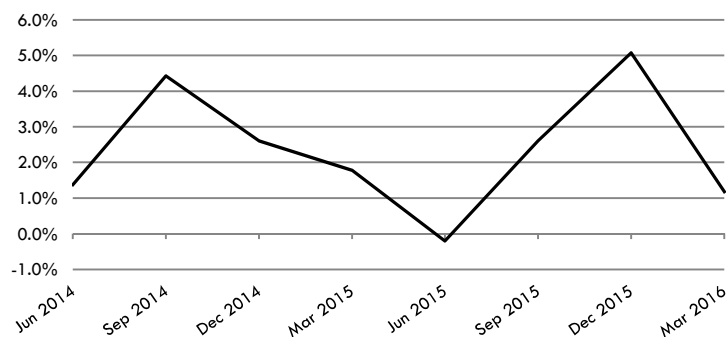
| | | | | | |
|---------------------------|--------|----------------------------|------|--------------------------------|-------|
| Median 52-Week Return | -29.7% | Median EV/Revenue Multiple | 5.2x | Median Price/Earnings Multiple | 18.5x |
| Median 3-Year CAGR Return | 9.4% | Median EV/EBITDA Multiple | 9.2x | Median EV/Gross CF Multiple | 15.1x |

Comparable Public Company Market Price Returns As of March 31, 2016

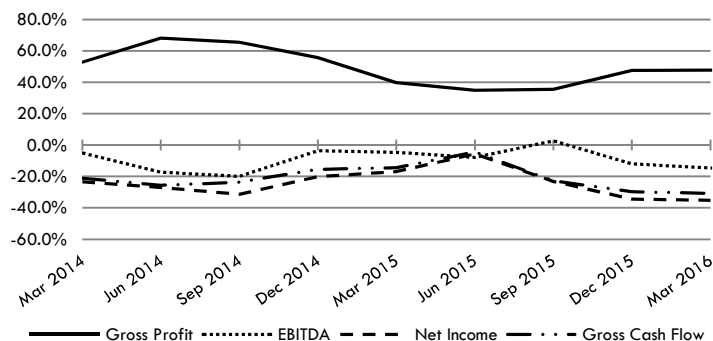
| | YTD | 3 Month | 1 Year | 2 Year | 3 Year | 5 Year | 2015 | 2014 | 2013 | 2012 | 2011 |
|--|---------------|---------------|---------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|-------------|
| Affimed N.V. | -47.5% | -47.5% | -40.6% | N/A | N/A | N/A | 14.8% | N/A | N/A | N/A | N/A |
| Ariad Pharmaceuticals Inc. | 2.2% | 2.2% | -22.5% | -11.0% | -29.3% | -3.2% | -9.0% | 0.7% | -64.4% | 56.6% | 140.2% |
| Bellicum Pharmaceuticals, Inc. | -53.9% | -53.9% | -59.6% | N/A | N/A | N/A | -12.0% | N/A | N/A | N/A | N/A |
| Calithera Biosciences, Inc. | -25.8% | -25.8% | -65.4% | N/A | N/A | N/A | -62.1% | N/A | N/A | N/A | N/A |
| Globelmmune Inc. | -46.0% | -46.0% | -71.5% | N/A | N/A | N/A | -49.0% | N/A | N/A | N/A | N/A |
| Incyte Corporation | -33.2% | -33.2% | -20.9% | 16.4% | 45.7% | 35.5% | 48.3% | 44.4% | 204.8% | 10.7% | -9.4% |
| Kite Pharma, Inc. | -25.5% | -25.5% | -20.4% | N/A | N/A | N/A | 6.8% | N/A | N/A | N/A | N/A |
| Loxo Oncology, Inc. | -3.9% | -3.9% | 119.6% | N/A | N/A | N/A | 142.1% | N/A | N/A | N/A | N/A |
| Luye Pharma Group Ltd. | -25.8% | -25.8% | -36.0% | N/A | N/A | N/A | -19.1% | N/A | N/A | N/A | N/A |
| Merrimack Pharmaceuticals, Inc. | 5.9% | 5.9% | -29.5% | 28.9% | 11.1% | N/A | -30.1% | 112.0% | -12.5% | N/A | N/A |
| Nektar Therapeutics | -18.4% | -18.4% | 25.0% | 6.5% | 7.7% | 7.7% | 8.7% | 36.6% | 53.2% | 32.4% | -56.5% |
| SciClone Pharmaceuticals, Inc. | 19.6% | 19.6% | 24.2% | 55.5% | 33.7% | 22.2% | 5.0% | 73.8% | 16.9% | 0.5% | 2.6% |
| Seattle Genetics, Inc. | -21.8% | -21.8% | -0.7% | -12.2% | -0.4% | 17.6% | 39.7% | -19.5% | 72.2% | 38.6% | 11.8% |
| Sequenom Inc. | -14.0% | -14.0% | -64.3% | -24.1% | -30.2% | -26.0% | -55.7% | 58.1% | -50.3% | 5.8% | -44.6% |
| Spectrum Pharmaceuticals, Inc. | 5.5% | 5.5% | 4.8% | -9.9% | -5.2% | -6.5% | -13.0% | -21.7% | -20.9% | -23.5% | 113.0% |
| Sucampo Pharmaceuticals, Inc. | -36.8% | -36.8% | -29.8% | 23.6% | 18.7% | 21.1% | 21.1% | 51.9% | 91.8% | 10.6% | 15.4% |
| Tokai Pharmaceuticals, Inc. | -35.7% | -35.7% | -50.4% | N/A | N/A | N/A | -40.8% | N/A | N/A | N/A | N/A |
| Vertex Pharmaceuticals Incorporated | -36.8% | -36.8% | -32.6% | 6.0% | 13.1% | 10.6% | 5.9% | 59.9% | 77.3% | 26.2% | -5.2% |
| Median of Industry Public Companies | -25.7% | -25.7% | -29.7% | 6.3% | 9.4% | 10.6% | -2.0% | 48.2% | 35.1% | 10.7% | 2.6% |

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

Median Quarterly Revenue Growth of All Oncology Pharmaceutical Companies



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



Median Public Company Multiples of the Oncology Pharmaceutical Industry

| Date: | 3/31/2014 | 6/30/2014 | 9/30/2014 | 12/31/2014 | 3/31/2015 | 6/30/2015 | 9/30/2015 | 12/31/2015 | 3/31/2016 |
|------------------------------|-----------|-----------|-----------|------------|-----------|-----------|-----------|------------|-----------|
| EV/Revenues Multiple | 5.7x | 3.2x | 2.8x | 2.8x | 6.1x | 5.3x | 4.8x | 5.0x | 5.2x |
| EV/EBITDA Multiple | 19.7x | 13.8x | 14.7x | 10.0x | 18.2x | 18.0x | 17.5x | 13.2x | 9.2x |
| Price/Earnings Multiple | 34.7x | 27.2x | 15.7x | 20.5x | 52.2x | 29.4x | 23.5x | 23.0x | 18.5x |
| EV/Gross Cash Flows Multiple | 17.9x | 18.1x | 27.5x | 9.7x | 42.0x | 24.5x | 20.4x | 13.2x | 15.1x |

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Quarterly Industry Update

As of March 31, 2016

Industry: Oncology Pharmaceutical



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

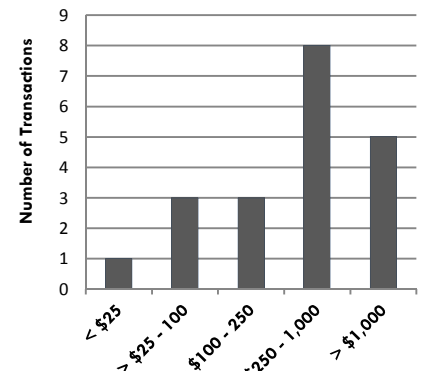
| Offer Date | Company Name | Offer Price | Shares Offered | Amount Raised | Total Assets | Debt | LTM Revenues | LTM EBITDA | LTM Net Income | LTM Cash Flows |
|---------------------------|------------------------------|-------------|----------------|---------------|---------------|--------------|--------------|-----------------|-----------------|-----------------|
| 3/22/2016 | Corvus Pharmaceuticals, Inc. | \$15.00 | 4.7 | \$70.5 | \$98.5 | \$0.0 | \$0.0 | (\$13.6) | (\$31.3) | (\$13.5) |
| 3/2/2016 | Syndax Pharmaceuticals, Inc. | \$12.00 | 4.4 | \$52.8 | \$89.9 | \$0.0 | \$0.6 | (\$14.9) | (\$24.1) | (\$14.9) |
| 2/2/2016 | BeiGene, Ltd. | \$24.00 | 6.6 | \$158.4 | \$135.6 | \$20.6 | \$5.5 | (\$35.3) | (\$33.6) | (\$33.8) |
| 10/7/2015 | CytomX Therapeutics, Inc. | \$12.00 | 6.7 | \$80.0 | \$134.1 | \$2.3 | \$7.6 | (\$17.5) | (\$20.4) | (\$16.6) |
| 9/30/2015 | Mirna Therapeutics, Inc. | \$7.00 | 6.3 | \$43.8 | \$42.2 | \$0.0 | \$0.0 | (\$17.8) | (\$19.8) | (\$17.8) |
| 7/28/2015 | NantKwest, Inc. | \$25.00 | 0.0 | \$207.2 | \$58.5 | \$0.0 | \$0.5 | (\$36.7) | (\$37.9) | (\$36.6) |
| 5/6/2015 | Adaptimmune Therapeutics plc | \$17.00 | 11.3 | \$191.3 | \$137.9 | \$0.0 | \$4.4 | (\$15.3) | (\$11.6) | (\$14.9) |
| Median of All IPOs | | nm | nm | \$80.0 | \$98.5 | \$0.0 | \$0.6 | (\$17.5) | (\$24.1) | (\$16.6) |

nm: not meaningful, N/A: not applicable

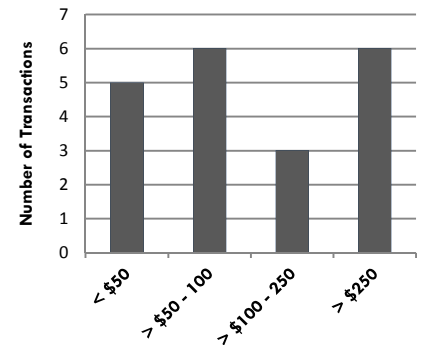
Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions)

| Transaction Date | Target | Acquirer | Transaction Size | % Bought | LTM Revenues | EV/Revenues |
|---|----------------------------|---------------------------|------------------|-------------|---------------|-------------|
| 12/4/2015 | DARA BioSciences, Inc. | Midatech Pharma Plc | \$30.7 | 100% | \$2.4 | 8.8x |
| 10/7/2015 | AstraZeneca PLC, Caprelsa | Genzyme Corporation | \$300.0 | 100% | \$48.0 | 6.3x |
| 7/23/2015 | Sigma-Tau Pharma | Baxter International Inc. | \$900.0 | 100% | \$100.0 | 9.0x |
| 5/26/2015 | Pharmacyclics, Inc. | AbbVie Inc. | \$19,950.0 | 100% | \$816.1 | 23.4x |
| 3/20/2015 | EUSA Pharma, Inc. | Essex Woodlands Health | \$34.0 | 100% | \$27.0 | 1.3x |
| 2/28/2014 | Paladin Labs Inc. | Endo International plc | \$1,777.9 | 100% | \$263.0 | 5.8x |
| 12/4/2013 | Agila Specialties Private | Mylan, Inc. | \$1,850.0 | 100% | \$255.0 | 7.3x |
| 10/24/2013 | Optimer Pharmaceuticals | Cubist Pharmaceuticals | \$773.8 | 100% | \$76.9 | 9.1x |
| 9/2/2013 | Open Stock Company | LLC Garden Hills | \$215.6 | 52% | \$142.4 | 2.4x |
| 7/16/2013 | Cipla Medpro | Cipla Limited | \$538.5 | 100% | \$259.6 | 2.0x |
| 6/12/2012 | EUSA Pharma, Inc. | Jazz Pharmaceuticals | \$700.0 | 100% | \$95.0 | 7.4x |
| 1/23/2012 | Ascent Pharmahealth Ltd | Watson Pharmaceuticals | \$392.7 | 100% | \$157.1 | 2.5x |
| 12/22/2011 | Lundbeck Inc. | Oak Pharmaceuticals Inc. | \$60.0 | 100% | \$34.8 | 1.7x |
| 4/7/2011 | Laboratorio Quimico | Amgen Inc. | \$215.0 | 100% | \$80.0 | 2.7x |
| 10/15/2010 | Abraxis BioScience, Inc. | Celgene Corporation | \$3,659.6 | 100% | \$447.5 | 7.8x |
| 6/7/2010 | OSI Pharmaceuticals Inc. | Astellas US Holding, Inc. | \$3,946.4 | 100% | \$441.0 | 7.7x |
| 1/29/2010 | Enzon Pharmaceuticals Inc. | Sigma-Tau Pharmaceuticals | \$330.0 | 100% | \$135.2 | 2.4x |
| 3/18/2009 | Indevus Pharmaceuticals | Endo International plc | \$825.5 | 100% | \$87.8 | 8.0x |
| 12/15/2008 | Amgen Inc. | Biovitrum AB | \$150.3 | 100% | \$70.0 | 2.1x |
| 5/8/2008 | Jazz Pharmaceuticals | EUSA Pharma, Inc. | \$22.6 | 100% | \$20.2 | 0.7x |
| Median of the 20 M&A Transaction Targets | | | \$465.6 | 100% | \$97.5 | 6.0x |

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.

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