

Healthcare Investment Banking Q4 2020 Update



Deborah F. Aghib, Ph.D.Managing Director,
Healthcare

daghib@cs-ib.com 305-438-7817 Dr. Aghib leverages 26 years of executive experience, broad scientific knowledge, and significant international expertise to develop long-term, cross-border and inter-industry strategies for business development, licensing, spinoffs, and mergers and acquisitions.

Previous Experience: Chief Business Officer, Stellar Biotechnologies; Vice President of Business Development and Strategy, Neuro-Zone; Chief Business Development and Strategy Officer, Dianax; Founder & Managing Director, DFA Advisors; Consultant, CRG, LP.

Board Involvement: Neuro-Zone, CellPly, ImmunGene, OpenWorm Foundation, Open Commons Consortium, SF Art and Film, Stellar Biotechnologies – Strategic Investment, M&A, Audit, and Corporate Governance Committees (Prior).

Ph.D., University of Milan; Ph.D., University of Pavia; B.S./M.S., University of Milan.



Margery Fischbein Managing Director, Healthcare

mfischbein@cs-ib.com 305-438-7816 Ms. Fischbein has a long track record of successfully advising clients in the healthcare industry on M&A, licensing transactions, public and private equity, and debt financings, as well as providing strategic advisory services.

Previous Experience: Managing Director and Head of Healthcare Investment Banking, Seaport Global and FBR & Co.; Managing Director and Head of East Coast Biotechnology, JMP Securities; Vice President Business Development, Human Genome Sciences; Vice President Business Development, ImClone Systems; Managing Director Investment Banking, Citigroup and JP Morgan Chase; Senior Vice President, Lehman Brothers.

Board Involvement: Cytodel, EcoHealth Alliance, Inhibrix (Prior).

M.B.A, Harvard Business School; B.A. Harvard University.



Ira Z. Leiderman
Managing Director,
Healthcare

ileiderman@cs-ib.com 305-438-7813

Mr. Leiderman has successfully led numerous transactions, as well as conducted strategic advisory work for companies in the healthcare and life science sectors.

Previous Experience: Founder & Managing Director, Long Trail Advisors, LLC; Co-Head — Healthcare Group, Ladenburg Thalmann & Co. Inc.; Head of Investment Banking, Punk Ziegal & Co.; Member, The Palladin Group; Senior Healthcare Banker, Gerard Klauer Mattison; Co-Founder & Founding CEO, Futuragene Ltd.

Board Involvement: Apthera – Executive Chairman, Collplant, MargineSurgical, Camp Ramah.

B.A., CUNY (Brooklyn).

 Cassel Salpeter & Co., LLC is a boutique investment banking firm focused on providing independent and objective advice to middle-market and emerging growth companies. We can help.

Mergers & Acquisitions

- Financial advisory
- Sales to strategic and private equity buyers
- Divestitures to strategic and private equity buyers
- Buy-side acquisition programs
- Leveraged & management buyouts
- Going private transactions

Capital Raising

- Financial advisory
- Equity and debt private placements
- Growth capital
- PIPEs
- Recapitalizations

Other Services

- Fairness opinions
- Solvency opinions
- Valuations
- Restructuring, refinancing, and distressed M&A transactions
 - Debtor and creditor representations
 - §363 sales & plans of reorganization



James Casse Chairman



Scott Salpeter President



Philip Cassel
Managing Director



Ira Leiderman
Managing Director



Deborah Aghib

Managing Director



Margery Fischbein Managing Director



Joseph Smith Director



Marcus Wai Vice President



Chris Mansueto Vice President



Laura Salpeter Vice President



Julian Astrove Associate



Edward Kropf Associate



Tahz Rashid Analyst

1	HEALTHCARE REVIEW
П	M&A & PRIVATE PLACEMENTS REVIEW
III	PUBLIC MARKETS REVIEW

Now that the dumpster fire that was 2020 is behind us, it is time to look forward to the new year with the hope that life returns to at least what it was in 2019. As we all can attest, the COVID-19 pandemic has changed our lives and the world for ever.

While the press has focused on the obvious impact that the pandemic has made on our everyday lives, it has for the most part skipped over fundamental issues that may affect the overall health of the general population.

One issue that has appeared repeatedly in the news is increased traffic at food banks. People have seen the pictures and videos of the lines of people and cars at food pantries. It is estimated that there has been a 60 percent increase in the use of these resources.¹ To add a bit of granularity to that number, it was reported in the Washington Post that approximately 29 million adults and over 8 million children lived in households that sometimes did not have enough food to eat and this is disproportionately higher in Black and Latinx households.² In order to start addressing this critical problem which is a direct result of the COVID-19 economic crisis, on January 22, 2021, President Biden signed the Executive Order on economic relief related to the COVID-19 pandemic.³

This massive uptick in people accessing food from food banks is a strong indicator of the increase in food insecurity, an issue that the media is not presenting as a threat to the health and wellbeing of those depending on food banks to feed themselves and their families. Food insecurity is defined as the limited or uncertain access to sufficient, nutritious food for an active, healthy life.⁴

¹ Food Insecurity Called Urgent Issue You Must Address. Medscape News. Nov. 12, 2020

² Catherine Rampell in the Washington Post. Jan. 23, 2021

³ Executive Order 14002 of January 22, 2021

⁴ Food Insecurity During COVID-19: An Acute Crisis with Long-Term Health Implications. AJPH 2020 vol110, No. 12

Food insecurity is associated with a wide range of negative effects on physical and mental health.⁵ Some of these negative outcomes include, but are not limited to, developmental delays in young children, iron and vitamin deficiencies leading to disease, and an increase in obesity, diabetes, and anxiety.⁶ Two age groups that suffer the most from decreased availability of nutritious food are the young and the elderly.⁷ If food insecurity is not addressed in a robust manner, we will undoubtedly see long-term consequences to the health of many citizens.

Another matter that we have heard little about is the alarming decline in children receiving their standard immunizations. We have all been hearing a lot about "herd immunity," a term that believe it or not was coined by the veterinarian George Potter in 1916 in an article he published in the Journal of the American Veterinary Association⁸ as it related to the control of "contagious abortion" in cattle in the U.S. By the 1920s, this term moved into human medicine as it related to a large portion of a population that carries immunity to a community acquired infectious disease.⁹ Today, it is widely used when it relates to mass immunization.

An excellent example of successful mass immunization has been the elimination of smallpox. Immunization commenced during the Revolutionary War,¹⁰ and with a concerted effort the virus that causes smallpox was in 1980 declared eliminated from the population.¹¹ This effort was so successful that children no longer are given smallpox immunization.

⁵ Impact of COVID-19 Pandemic on Mental Health. J.Affect Disord 2020 Vol. 277 (55-64) Dec. 1, 2020

⁶ Ibid.

⁷Good Nutrition Essential for Healthy Aging. Medscape May 8, 2019

⁸ As cited in; A History of Herd Immunity, Lancet vol. 396;810, Sep. 19, 2020

⁹ Ibid.

¹⁰ Smallpox Vaccination: An early start of modern medicine in America. J. Community Hosp Intern Med Perspect. Vol. 7 No. 1 Jan. 2017

¹¹ www.Cdc.gov/smallpox/history/history.html

Another disease that has thankfully been eliminated in the U.S. is polio, though we maintain our vigilance and the majority of young children are still vaccinated with the oral polio vaccine. But herd immunity only works when the "herd," or a majority of the population, is immune or immunized to a contagious organism. The threshold for this communal immunity is 75 percent or greater depending upon the pathogen. But when the percentage drops below a calculated threshold, the disease begins to reappear and the reservoir of pathogen reestablishes itself within a given community, thus the problem. An example of this is measles. Measles was declared eradicated in the U.S. in 2000. Unfortunately, measles is making a comeback due to a decrease in the number of children receiving their "shots" and consequently, a reservoir of virus has been re-forming in the community. An example of this is measles.

Due to the COVID-19 pandemic, we have seen a frightful drop in childhood immunizations. Doctors' offices and clinics were closed except for emergencies and when they started to reopen parents were fearful to take their children in for routine care. If this drop off in immunizations is not corrected in a short period of time, it will undoubtedly result in an uptick in childhood diseases, some of which can leave lasting effects on children or, in severe disease outbreaks, lead to deaths.¹⁵

Children were not the only ones negatively impacted by missing in-person visits with their doctor. There has been a serious drop in overall cancer screening. It is estimated that during the first COVID-19 surge (March – June 2020) screening fell by 60 percent. Overall cancer diagnoses fell by 19 percent during the same period. Though there was some recovery or "catch-up" starting in the summer, the screening procedures tended to be in high-risk patients. There is still a long way to go to return to pre-COVID levels of screening. 16,17

¹² Concepts of Herd Protection and Immunity. Procedia in Vaccinology, Vol.2, Issue 2, 2010 Pages 134-139

¹³ Summary and Conclusions: Measles Elimination Meeting, 16-17 March 2000. Journal of Infectious Diseases Vol. 189, May 2004

¹⁴ Vaccine Refusal and Measles Outbreaks in the US. JAMA. Vol. 324 Issue 13, Aug. 14, 2020

¹⁵ COVID-19's Lost Generation of Vaccinated Children. The Lancet. Jan. 6, 2021

¹⁶ The Untold Toll. NEJM. Vol. 382;24 Jun 11, 2020

¹⁷ Cancer Screenings Rebound After COVID Surge. Medscape. Jan 21, 2021

As the adage goes, for every dark cloud there is a silver lining. The pandemic has brought on a surge of research. Not surprisingly, coronavirus research leads the charge followed by work in infectious diseases and related pathogens. The flood of published data is unprecedented.¹⁸ We are all bombarded with data by the media that is not always accurate or offered in the proper context. The pandemic has minted many so-called experts, unworthy of the distinction.

However, on a more positive note, we have achieved unprecedented cooperation between government and industry. Corporate competitors are collaborating to develop effective vaccines and therapeutics. We are also starting to see a resurgence of interest in financing research for new anti-infectives. After years of being the neglected child with a number of high-profile bankruptcies, the infectious disease space is once again gaining investor interest.¹⁹

Another exciting development to come out of the pandemic is the use of mRNA-based vaccines. After years of research, and much to the chagrin of naysayers, the first two vaccines to prevent SARS-CoV-2 infection are both mRNA-based vaccines that appear to be safe and highly effective in stimulating the production of both high titers of neutralizing antibodies and T-cells that will mount a sustained response. The durability of these vaccines and effectiveness against mutant strains are to be seen, but so far, so good. This is opening the window for similar vaccines for other infectious diseases, some of which have eluded vaccine developers for decades, such as a vaccine for malaria, HIV, and possibly a pan-influenza vaccine. In our opinion this is incredibly exciting.

Taking a brief look back to our last report: research studies are still ongoing looking at the correlation between MMR vaccination and the incidence of COVID-19. Preliminary data is intriguing, but we do not expect to see any hard data from these studies until the Spring of 2021. Stay tuned.

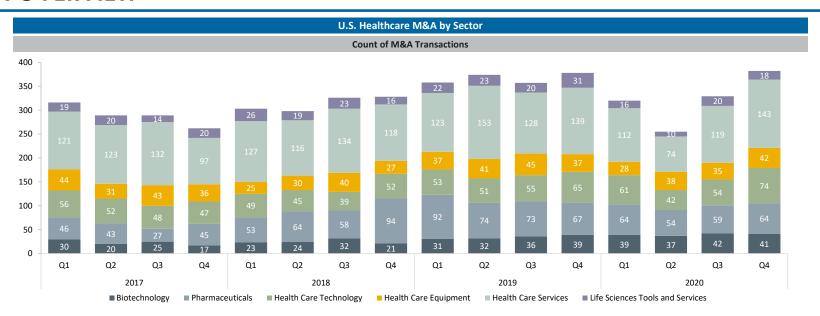
¹⁸ COVID in Papers: A Torrent of Science. Nature. Vol. 588 no. 7839, Dec. 24/31, 2020

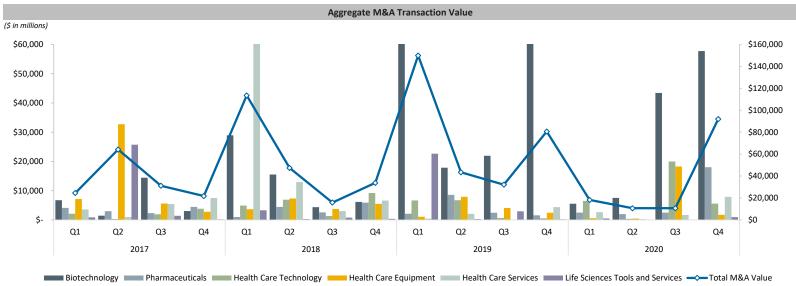
¹⁹ 2021 Forecast: COVID-19 brings infectious disease R&D out of the wilderness. Fierce Biotech. Dec. 22, 2020

I HEALTHCARE REVIEW

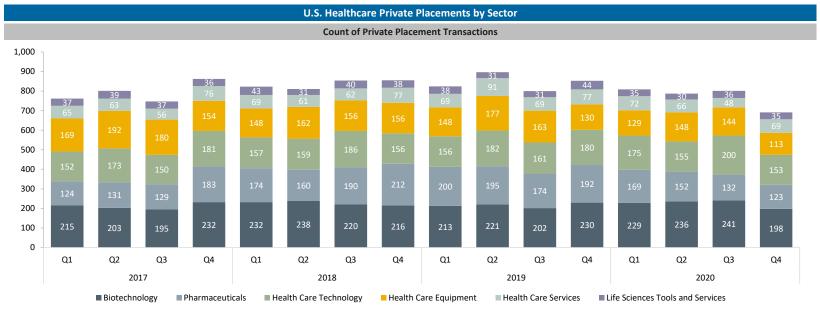
II M&A & PRIVATE PLACEMENTS REVIEW

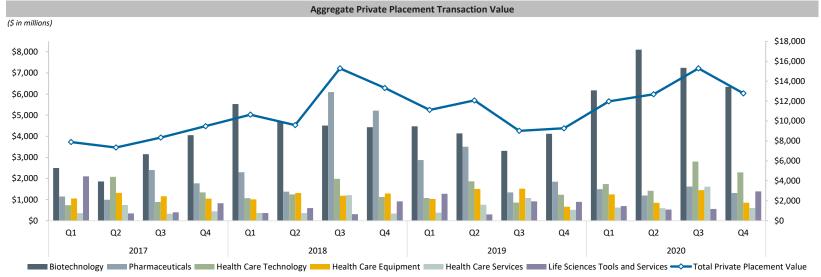
III PUBLIC MARKETS REVIEW



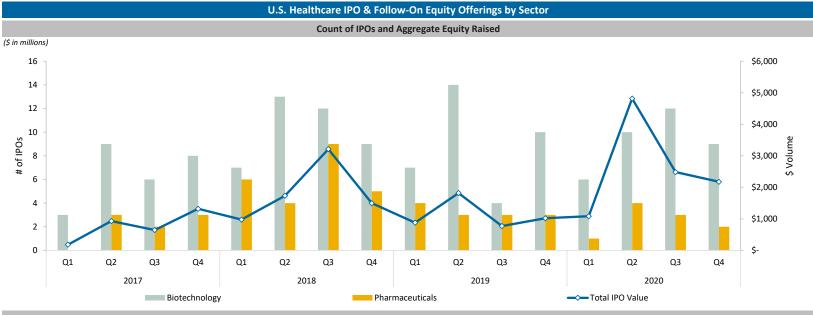


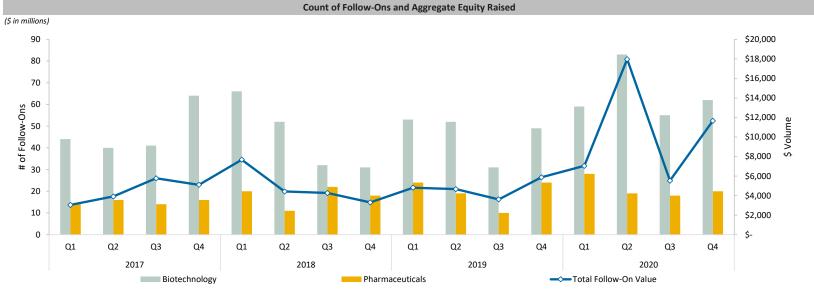
Note: Q1 2018 total transaction value for Health Care Services was \$71,655 and Q1 2019 total transaction value for Biotechnology was \$116,936. Sources of information: S&P Capital IQ.

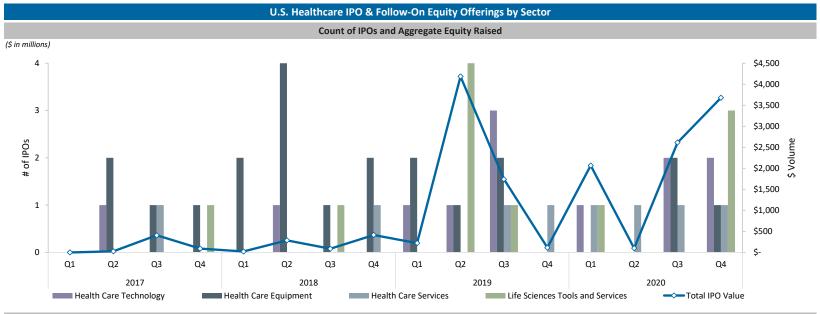


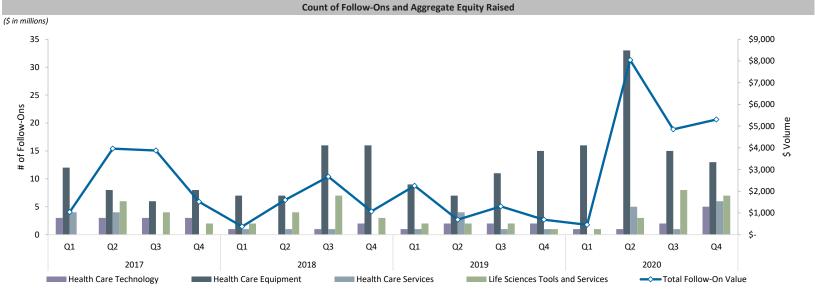


III	PUBLIC MARKETS REVIEW
II	M&A & PRIVATE PLACEMENTS REVIEW
I	HEALTHCARE REVIEW











Selected Companies Review

(\$ in thousands, except per security)

				Market Statistics					Me	trics			Valuation I	Benchmark	s
		Clos	sing Price	% of 52-week	Enterprise	П	Revenue	- 1	EBITDA	EBITDA	EBITDA	EV / Re	venue	EV / EI	BITDA
Company	Ticker	31	-Dec-20	High-Low	Value		LTM		LTM	LTM Margin	2022 E Growth	LTM	2021 E	LTM	2021 E
Vaccines															
AstraZeneca PLC	LSE:AZN	\$	99.99	72.4% - 124.7%	\$ 149,836.5	\$	25,871.0	\$	7,705.0	29.8%	24.1%	5.79x	4.96x	19.4x	14.7x
Bavarian Nordic A/S	CPSE:BAVA	\$	30.73	69.8% - 181.2%	1,450.1		301.9		149.3	49.5%	10.6%	4.80x	3.81x	9.7x	23.9x
BioNTech SE	NasdaqGS:BNTX	\$	81.52	62.2% - 291.1%	18,636.9		193.6		(418.0)	-215.9%	23.7%	nm	2.63x	na	3.8x
CSL Limited	ASX:CSL	\$	218.47	82.6% - 116.7%	104,760.5		9,150.8		3,067.7	33.5%	17.9%	11.45x	10.03x	34.1x	30.9x
CureVac N.V.	NasdaqGM:CVA	\$	81.07	53.4% - 224.3%	13,292.4		58.3		(117.1)	-200.9%	149.8%	nm	7.16x	na	10.0x
Dynavax Technologies Corporation	NasdaqCM:DVA	(\$	4.45	35.8% - 247.2%	531.5		37.6		(73.4)	-195.5%	na	14.15x	4.66x	na	na
GlaxoSmithKline plc	LSE:GSK	\$	18.32	72.3% - 104.5%	132,464.9		44,302.3		12,935.5	29.2%	6.7%	2.99x	2.74x	10.2x	9.0x
Heat Biologics, Inc.	NasdaqCM:HTBX	\$	5.36	17.8% - 392.7%	6.4		4.3		(21.3)	-489.7%	na	1.47x	2.71x	na	na
Inovio Pharmaceuticals, Inc.	NasdaqGS:INO	\$	8.85	26.2% - 300.0%	1,256.2		2.1		(119.4)	-5659.0%	na	nm	8.80x	na	na
Johnson & Johnson	NYSE:JNJ	\$	157.38	99.8% - 144.2%	425,449.1		80,856.0		27,264.0	33.7%	7.1%	5.26x	4.82x	15.6x	13.7x
Merck & Co., Inc.	NYSE:MRK	\$	81.80	88.8% - 125.4%	228,732.3		47,347.0		19,006.0	40.1%	7.3%	4.83x	4.43x	12.0x	10.6x
Moderna, Inc.	NasdaqGS:MRNA	\$	104.47	58.5% - 590.9%	40,059.3		246.7		(585.2)	-237.2%	-48.3%	nm	5.25x	na	6.2x
Novavax, Inc.	NasdaqGS:NVAX	\$	111.51	58.9% - 3053.6%	5,882.9		204.8		(68.7)	-33.5%	na	28.73x	1.71x	na	na
Pfizer Inc.	NYSE:PFE	\$	36.41	84.5% - 130.6%	258,222.3		48,649.0		19,320.0	39.7%	-6.0%	5.31x	5.01x	13.4x	11.2x
Sanofi	ENXTPA:SAN	\$	96.27	82.1% - 116.3%	132,148.4		44,210.9		12,629.2	28.6%	10.6%	2.99x	2.86x	10.5x	8.8x
		Med	an	64.3% - 409.6%	\$ 100,848.6	\$	20,095.8	\$	6,711.6	-449.8%	18.5%	7.98x	4.77x	15.6x	13.0x
		Me	dian	69.8% - 181.2%	\$ 40,059.3	\$	301.9	\$	149.3	28.6%	10.6%	5.26x	4.66x	12.7x	10.6x

Market value equals price per share times number of diluted shares outstanding. Enterprise value equals market value plus debt, preferred stock, and non controlling interests, less cash.

SELECTED PUBLIC COMPANIES - PHARMA (CONT.)

Selected Companies Review	
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				Market Statistics				Me	trics		Valuation I	Benchmark	s	
		Clos	ing Price	% of 52-week	Enterprise	Rev	venue	EBITDA	EBITDA	EBITDA	EV / Re	venue	EV / E	BITDA
Company	Ticker	31	-Dec-20	High-Low	Value	L	.TM	LTM	LTM Margin 2	022 E Growth	LTM	2021 E	LTM	2021 E
Neurology														
AbbVie Inc.	NYSE:ABBV	\$	105.91	97.0% - 169.3%	\$ 268,596.6	\$ 4	0,650.0	\$ 18,372.0	45.2%	8.2%	6.61x	4.98x	14.6x	9.5
Biogen Inc.	NASDAQ:BIIB	\$	244.86	65.3% - 109.7%	40,912.2	1	.4,263.3	7,149.5	50.1%	0.3%	2.87x	3.61x	5.7x	7.4
Biohaven Pharmaceutical Holding Company I	NYSE:BHVN	\$	85.71	85.1% - 322.7%	5,391.5		28.5	(604.9)	-2121.4%	-50.6%	nm	22.57x	na	na
Eli Lilly and Company	NYSE:LLY	\$	168.84	97.1% - 144.2%	165,569.6	2	3,213.8	7,741.8	33.3%	6.2%	7.13x	6.08x	21.4x	16.4
Johnson & Johnson	NYSE:JNJ	\$	157.38	99.8% - 144.2%	425,449.1	8	0,856.0	27,264.0	33.7%	7.1%	5.26x	4.82x	15.6x	13.7
Pfizer Inc.	NYSE:PFE	\$	36.41	84.5% - 130.6%	258,222.3	4	8,649.0	19,320.0	39.7%	-6.0%	5.31x	5.01x	13.4x	11.2
Regeneron Pharmaceuticals, Inc.	NasdaqGS:REGN	\$	483.11	72.7% - 147.2%	50,965.7		9,243.5	3,349.0	36.2%	6.6%	5.51x	5.01x	15.2x	10.7
Roche Holding AG	SWX:ROG	\$	349.25	86.3% - 116.3%	314,821.2	6	5,864.9	25,450.3	38.6%	4.8%	4.78x	4.45x	12.4x	10.5
Sanofi	ENXTPA:SAN	\$	96.27	82.1% - 116.3%	132,148.4	4	4,210.9	12,629.2	28.6%	10.6%	2.99x	2.86x	10.5x	8.8
Takeda Pharmaceutical Company Limited	TSE:4502	\$	36.38	83.0% - 129.7%	102,831.7	3	0,546.5	7,052.6	23.1%	6.0%	3.37x	3.26x	14.6x	9.0
Tonix Pharmaceuticals Holding Corp.	NASDAQ:TNXP	\$	0.68	27.4% - 173.0%	74.9		na	(42.2)	na	na	na	na	na	na
		Ме	an	80.0% - 154.8%	\$ 160,453.0	\$ 3	5,752.6	\$ 11,607.4	-179.3%	-0.7%	4.87x	6.26x	13.7x	10.8
		Me	dian	84.5% - 144.2%	\$ 132,148.4	\$ 3	5,598.3	\$ 7,741.8	35.0%	6.1%	5.26x	4.90x	14.6x	10.5
Anti-Infectives														
Abbott Laboratories	NYSE:ABT	\$	109.05	94.7% - 177.0%	\$ 202,961.3	\$ 3	2,221.0	\$ 7,823.0	24.3%	5.6%	6.30x	5.29x	25.9x	18.6
Cipla Limited	NSEI:CIPLA	\$	11.23	97.7% - 230.8%	8,965.5		2,458.9	474.7	19.3%	11.4%	3.65x	3.21x	18.9x	14.2
Hikma Pharmaceuticals PLC	LSE:HIK	\$	34.38	91.0% - 157.8%	8,476.4		2,292.0	614.0	26.8%	7.0%	3.70x	3.39x	13.8x	11.7
Johnson & Johnson	NYSE:JNJ	\$	157.38	99.8% - 144.2%	425,449.1	8	0,856.0	27,264.0	33.7%	7.1%	5.26x	4.82x	15.6x	13.7
Merck & Co., Inc.	NYSE:MRK	\$	81.80	88.8% - 125.4%	228,732.3	4	7,347.0	19,006.0	40.1%	7.3%	4.83x	4.43x	12.0x	10.6
Viatris Inc.	NasdaqGS:VTRS	\$	18.74	81.1% - 147.0%	34,253.3	1	1,514.3	3,512.1	30.5%	-0.3%	2.97x	1.85x	9.8x	5.0
Novartis AG	SWX:NOVN	\$	94.55	86.8% - 128.5%	244,040.7	4	9,584.0	18,223.0	36.8%	6.0%	4.92x	4.65x	13.4x	13.3
Pfizer Inc.	NYSE:PFE	\$	36.41	84.5% - 130.6%	258,222.3	4	8,649.0	19,320.0	39.7%	-6.0%	5.31x	5.01x	13.4x	11.2
Sun Pharmaceutical Industries Limited	NSEI:SUNPHARMA	\$	8.04	98.0% - 188.2%	19,203.4		4,417.1	985.4	22.3%	10.2%	4.35x	3.79x	19.5x	15.8
Teva Pharmaceutical Industries Limited	NYSE:TEVA	\$	9.65	70.1% - 154.4%	35,841.1	1	6,673.0	4,611.0	27.7%	2.7%	2.15x	2.13x	7.8x	7.2
		_			4	4 -		 40.400 -						
		Me		89.3% - 158.4%	\$ 146,614.5		9,601.2	\$ 10,183.3	30.1%	5.1%	4.34x	3.86x	15.0x	12.1
		Me	dian	89.9% - 150.7%	\$ 119,401.2	\$ 2	4,447.0	\$ 6,217.0	29.1%	6.5%	4.59x	4.11x	13.6x	12.5

Market value equals price per share times number of diluted shares outstanding. Enterprise value equals market value plus debt, preferred stock, and non controlling interests, less cash.

SELECTED PUBLIC COMPANIES – PHARMA (CONT.)

Selected Companies Review (\$ in thousands, except per security) **Market Statistics** Metrics Valuation Benchmarks **Closing Price** % of 52-week **EBITDA EBITDA EBITDA** EV / Revenue Enterprise Revenue EV / EBITDA Ticker 31-Dec-20 High-Low Value LTM LTM LTM Margin 2022 E Growth LTM 2021 E LTM 2021 E Company Cancer Immunotherapy NasdagGS:AMGN \$ 229.92 86.8% - 129.9% \$ 155,925.8 \$ 24,987.0 \$ 12,647.0 50.6% 3.4% 6.24x 12.3x Amgen Inc. 5.91x 10.2x BioNTech SE NasdagGS:BNTX \$ 193.6 -215.9% 81.52 62.2% - 291.1% 18,636.9 (418.0)23.7% nm 2.63x na 3.8x Bristol-Myers Squibb Company NYSE:BMY \$ 62.03 90.8% - 135.6% 165,485.3 39,395.0 16,818.0 42.7% 6.2% 4.20x 3.60x 9.8x 6.9x bluebird bio, Inc. NasdagGS:BLUE \$ 43.27 43.5% - 111.1% 1,629.4 250.0 (638.1)-255.2% -7.4% 6.52x 11.09x na na 497.4 Celldex Therapeutics, Inc. NasdaqCM:CLDX \$ 17.52 74.9% - 1168.0% 4.5 (47.7)-1054.4% na nm nm na na Cellectis S.A. ENXTPA:ALCLS \$ 29.85 89.4% - 372.5% 1,088.8 72.9 (86.5)-118.6% 47.6% 14.94x 12.98x na Gilead Sciences. Inc. NasdagGS:GILD Ś 58.26 67.8% - 103.0% 75,311.5 23.147.0 6,346.0 27.4% -3.4% 3.25x 3.20x 11.9x 6.1x **Incyte Corporation** NasdaqGS:INCY \$ 86.98 78.8% - 139.2% 17,497.6 2,456.6 (258.1)-10.5% 7.2% 7.12x 6.08x 20.7x \$ Merck & Co., Inc. NYSE:MRK 81.80 88.8% - 125.4% 228,732.3 47,347.0 19,006.0 40.1% 7.3% 4.83x 4.43x 12.0x 10.6x \$ Novartis AG SWX:NOVN 94.55 86.8% - 128.5% 244,040.7 49,584.0 18,223.0 36.8% 6.0% 4.92x 4.65x 13.4x 13.3x Regeneron Pharmaceuticals, Inc. NasdaqGS:REGN \$ 483.11 72.7% - 147.2% 50,965.7 9,243.5 3,349.0 36.2% 6.6% 5.51x 5.01x 15.2x 10.7x ZIOPHARM Oncology, Inc. NasdagGS:ZIOP 2.52 403.7 49.3% - 140.4% (72.7)na na na na na na Mean 74.3% - 249.3% \$ 80,017.9 \$ 17,880.1 \$ 6,239.0 -129.2% 9.7% 6.39x 5.96x 12.4x 10.3x Median \$ 34,801.3 9,243.5 \$ 1,650.7 6.4% 76.8% - 137.4% 27.4% 5.51x 4.83x 12.2x 10.4x Cardiovascular AstraZeneca PLC LSE:AZN \$ 99.99 72.4% - 124.7% \$ 149,836.5 25,871.0 \$ 7,705.0 29.8% 5.79x 24.1% 4.96x 19.4x 14.7x Ś Bayer Aktiengesellschaft XTRA:BAYN 58.91 61.5% - 120.7% 92.194.0 49,500.9 (2,394.3)-4.8% 6.6% 1.86x 1.78x na 6.5x Bristol-Myers Squibb Company \$ 62.03 39,395.0 42.7% 6.2% NYSE:BMY 90.8% - 135.6% 165,485.3 16,818.0 4.20x 3.60x 9.8x 6.9x Gilead Sciences. Inc. NasdaqGS:GILD \$ 58.26 67.8% - 103.0% 75,311.5 23,147.0 6,346.0 27.4% -3.4% 3.25x 3.20x 11.9x 6.1x Johnson & Johnson NYSE:JNJ \$ 157.38 99.8% - 144.2% 425,449.1 80,856.0 27,264.0 33.7% 7.1% 5.26x 4.82x 15.6x 13.7x \$ Novartis AG SWX:NOVN 94.55 86.8% - 128.5% 244,040.7 49,584.0 18,223.0 36.8% 6.0% 4.92x 4.65x 13.4x 13.3x Pfizer Inc. NYSE:PFE \$ 36.41 84.5% - 130.6% 258,222.3 48,649.0 19,320.0 39.7% -6.0% 5.31x 5.01x 13.4x 11.2x \$ Sanofi **ENXTPA:SAN** 96.27 82.1% - 116.3% 132.148.4 44.210.9 12.629.2 28.6% 10.6% 2.99x 2.86x 10.5x 8.8x NasdagGS:UTHR \$

4,854.2

\$ 171,949.1

\$ 149.836.5

1,409.5

\$ 44,210.9

\$ 40,291.5 642.3

\$ 11,839.2

\$ 12.629.2

45.6%

31.0%

33.7%

-8.2%

4.8%

6.2%

3.44x

4.11x

4.20x

3.32x

3.80x

3.60x

Market value equals price per share times number of diluted shares outstanding. Enterprise value equals market value plus debt, preferred stock, and non controlling interests, less cash.

99.3% - 200.8%

82.8% - 133.8%

84.5% - 128.5%

151.79

Mean

Median

Sources of information: S&P Capital IQ.

United Therapeutics Corporation

7.6x

12.7x

12.6x

7.2x

9.8x

8.8x

Selected	Compan	ies Review

(\$ in thousands, except per security)

				Market	Statistics						Me	trics	Valuation Benchmarks				
		Clos	ing Price		2-week	Er	nterprise		Revenue		EBITDA	EBITDA	EBITDA	EV / Re		EV / E	
Company	Ticker	31-Dec-20		High-Low			Value		LTM		LTM	LTM Margin 2022 E Growth		LTM 2021 E		LTM	2021 E
Imaging																	
EOS imaging SA	ENXTPA:EOSI	\$	2.84	80.0%	- 196.6%	\$	101.2	\$	29.6	\$	(11.7)	-39.5%	-26.5%	3.42x	2.04x	na	na
FUJIFILM Holdings Corporation	TSE:4901	\$	52.69	84.7%	- 131.0%		23,403.4		20,672.7		2,591.0	12.5%	11.5%	1.13x	1.03x	9.0x	7.6x
General Electric Company	NYSE:GE	\$	10.80	81.4%	- 197.1%		157,305.6		83,928.0		7,206.0	8.6%	26.6%	1.87x	1.95x	21.8x	16.6x
Hitachi, Ltd.	TSE:6501	\$	39.39	86.6%	- 161.1%		58,623.7		78,750.7		10,523.1	13.4%	11.8%	0.74x	0.69x	5.6x	6.0x
Hologic, Inc.	NasdaqGS:HOLX	\$	72.83	94.0%	- 274.9%		21,266.4		3,776.4		1,533.3	40.6%	-32.7%	5.63x	4.49x	13.9x	9.9x
Intelligent Ultrasound Group plc	AIM:IUG	\$	0.20	78.4%	- 237.7%		39.7		6.5		(4.6)	-70.4%	na	6.08x	na	na	na
Koninklijke Philips N.V.	ENXTAM:PHIA	\$	53.55	94.4%	- 166.0%		54,869.5		22,888.7		2,997.3	13.1%	9.3%	2.40x	2.24x	18.3x	11.8x
Shenzhen Mindray Bio-Medical Electronics	SZSE:300760	\$	65.25	99.5%	- 242.0%		76,660.2		2,980.5		1,087.9	36.5%	21.0%	25.72x	19.75x	nm	nm
Siemens Healthineers AG	XTRA:SHL	\$	51.35	88.8%	- 147.3%		60,891.6		16,979.8		3,123.5	18.4%	10.0%	3.59x	3.19x	19.5x	14.6x
Toshiba Corporation	TSE:6502	\$	27.95	71.6%	- 145.6%		15,718.2		29,117.5		1,127.1	3.9%	13.4%	0.54x	0.50x	13.9x	6.4x
		Мес	an	85.9%	- 189.9%	\$	46,888.0	\$	25,913.1	\$	3,017.3	3.7%	4.9%	5.11x	3.99x	14.6x	10.4x
		Мес	dian	85.7%	- 181.3%	\$	39,136.4	\$	18,826.3	\$	2,062.1	12.8%	11.5%	2.91x	2.04x	13.9x	9.9x
Robotic Surgery																	
Accuray Incorporated	NasdaqGS:ARAY	\$	4.17	85.8%	- 313.5%	\$	501.4	\$	378.7	\$	29.6	7.8%	36.6%	1.32x	1.22x	16.9x	11.5x
Globus Medical, Inc.	NYSE:GMED	\$	65.22	97.9%	- 195.2%		5,929.1		767.3		166.9	21.7%	12.5%	7.73x	6.49x	35.5x	18.9x
Intuitive Surgical, Inc.	NasdaqGS:ISRG	\$	818.10	98.9%	- 226.9%		93,771.7		4,307.0		1,292.8	30.0%	20.4%	21.77x	18.79x	nm	45.0x
Smith & Nephew plc	LSE:SN.	\$	20.62	74.6%	- 143.1%		20,582.1		4,688.0		957.0	20.4%	7.4%	4.39x	3.86x	21.5x	13.7x
Stereotaxis, Inc.	AMEX:STXS	\$	5.09	91.2%	- 299.4%		320.1		26.7		(6.6)	-24.7%	-128.6%	11.99x	8.39x	na	na
Stryker Corporation	NYSE:SYK	\$	245.04	99.9%	- 196.8%		99,543.8		14,220.0		3,857.0	27.1%	11.1%	7.00x	6.02x	25.8x	21.0x
Zimmer Biomet Holdings, Inc.	NYSE:ZBH	\$	154.09	93.3%	- 207.2%		39,502.1		7,064.9		1,933.4	27.4%	7.2%	5.59x	4.87x	20.4x	14.9x
		Мес	an	91.7%	- 226.0%	\$	37,164.3	\$	4,493.2	\$	1,175.7	15.7%	-4.8%	8.54x	7.09x	24.0x	20.8x
		Мес	dian	93.3%	- 207.2%	\$	20,582.1	\$	4,307.0	\$	957.0	21.7%	11.1%	7.00x	6.02x	21.5x	16.9x

Market value equals price per share times number of diluted shares outstanding. Enterprise value equals market value plus debt, preferred stock, and non controlling interests, less cash.

SELECTED PUBLIC COMPANIES - DEVICES (CONT.)

Selected Companies Review (\$ in thousands, except per security) **Market Statistics** Metrics Valuation Benchmarks **Closing Price** % of 52-week **EBITDA EBITDA EBITDA** EV / Revenue Enterprise Revenue EV / EBITDA Company Ticker 31-Dec-20 High-Low Value LTM LTM LTM Margin 2022 E Growth LTM 2021 E LTM 2021 E Orthopedics **Colfax Corporation** NYSE:CFX \$ 38.24 97.3% - 312.7% \$ 6,897.7 \$ 3,131.0 \$ 496.1 15.8% 10.9% 2.20x 2.04x 13.9x 12.0x **CONMED Corporation** \$ 112.00 97.4% - 297.4% 4,013.4 874.5 143.5 16.4% 14.4% 4.59x 3.93x 28.0x NYSE:CNMD 20.4x Medtronic plc \$ 117.14 95.9% - 162.4% 174,359.0 27,868.0 23.5% 6.26x 5.40x 26.6x NYSE:MDT 6,556.0 5.1% 16.1x NuVasive, Inc. NasdaqGS:NUVA \$ 56.33 68.8% - 197.3% 3,427.0 1,069.1 186.7 17.5% 12.0% 3.21x 2.81x 18.4x 11.5x NasdagGS:OFIX \$ 42.98 782.0 Orthofix Medical Inc. 89.7% - 194.4% 410.4 23.4 5.7% 7.1% 1.91x 1.73x 33.4x 13.0x Smith & Nephew plc LSE:SN. 20.62 74.6% - 143.1% 20,582.1 4,688.0 957.0 20.4% 7.4% 4.39x 3.86x 21.5x 13.7x Stryker Corporation NYSE:SYK Ś 245.04 99.9% - 196.8% 99,543.8 14,220.0 3,857.0 27.1% 11.1% 7.00x 6.02x 25.8x 21.0x Zimmer Biomet Holdings, Inc. NYSE:ZBH 154.09 93.3% - 207.2% 39,502.1 7,064.9 1,933.4 27.4% 7.2% 5.59x 4.87x 20.4x 14.9x Mean 89.6% - 213.9% \$ 43,638.4 7,415.7 \$ 1.769.1 19.2% 9.4% 4.39x 3.83x 23.5x 15.3x \$ 13,739.9 3,909.5 \$ 726.5 18.9% 9.2% Median 94.6% - 197.0% 4.49x 3.89x 23.7x 14.3x Cardiovascular **Abbott Laboratories** NYSE:ABT 109.05 94.7% - 177.0% \$ 202,961.3 32,221.0 7,823.0 24.3% 5.6% 6.30x 5.29x 25.9x 18.6x Baxter International Inc. \$ 80.24 84.3% - 116.1% 44,318.5 11,531.0 23.9% 7.2% 3.84x NYSE:BAX 2,757.0 3.65x 16.1x 14.9x Becton, Dickinson and Company NYSE:BDX 250.22 87.3% - 126.5% 88,811.8 17,117.0 4,674.0 27.3% 6.2% 5.19x 4.67x 19.0x 15.5x 10,108.0 **Boston Scientific Corporation** \$ 35.95 NYSE:BSX 77.9% - 149.2% 59,378.8 2,122.0 21.0% 15.2% 5.87x 5.10x 28.0x 17.6x **Edwards Lifesciences Corporation** NYSE:EW 91.23 99.1% - 177.1% 57,019.9 4,368.7 15.6% 1,402.5 32.1% 13.05x 11.20x 40.7x 34.3x Medtronic plc NYSE:MDT Ś 117.14 95.9% - 162.4% 174,359.0 27,868.0 6,556.0 23.5% 5.1% 6.26x 5.40x 26.6x 16.1x Mean 89.9% - 151.4% \$ 17,202.3 \$ 4,222.4 25.4% 6.75x 5.89x 26.0x 19.5x \$ 104,474.9 9.1%

\$ 74,095.3

\$ 14,324.0

\$

3,715.5

24.1%

6.7%

6.07x

5.20x

26.3x

16.8x

91.0% - 155.8% Market value equals price per share times number of diluted shares outstanding. Enterprise value equals market value plus debt, preferred stock, and non controlling interests, less cash.

Median

Sel	ected	Com	nanies	Review
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(\$ in thousands, except per security)

				Market Statistics						Me	trics	Valuation Benchmarks					
		Clos	sing Price	% of 52-week	Е	nterprise	F	Revenue	E	EBITDA	EBITDA	EBITDA	EV / Re	venue	EV / EI	BITDA	
Company	Ticker	31	-Dec-20	High-Low		Value		LTM		LTM	LTM Margin	2022 E Growth	LTM	2021 E	LTM	2021 E	
Diagnostics/Lab Testing																	
Enzo Biochem, Inc.	NYSE:ENZ	\$	2.52	52.0% - 161.5%	\$	106.9	\$	84.5	\$	(19.0)	-22.4%	na	1.27x	na	na	na	
Exact Sciences Corporation	NASDAQ:EXAS	\$	132.49	92.0% - 375.8%		21,683.9		1,320.6		(50.4)	-3.8%	580.0%	16.42x	11.84x	na	nm	
Laboratory Corporation of America Holdings	NYSE:LH	\$	203.55	93.0% - 207.7%		25,903.7		12,442.1		2,551.7	20.5%	-19.1%	2.08x	1.87x	10.2x	8.6	
Myriad Genetics, Inc.	NASDAQ:MYGN	\$	19.78	65.6% - 214.0%		1,588.4		597.5		(83.8)	-14.0%	28.4%	2.66x	2.38x	na	35.8	
NeoGenomics, Inc.	NASDAQ:NEO	\$	53.84	94.3% - 263.0%		6,028.9		425.3		21.5	5.1%	40.9%	14.18x	11.43x	nm	nm	
Quest Diagnostics Incorporated	NYSE:DGX	\$	118.63	90.0% - 162.5%		19,952.3		8,361.0		1,926.0	23.0%	-21.9%	2.39x	2.13x	10.4x	8.8	
		Me	an	81.2% - 230.8%	\$	12,544.0	\$	3,871.8	\$	724.3	1.4%	121.7%	6.50x	5.93x	10.3x	17.7	
		Ме	dian	91.0% - 210.8%	\$	12,990.6	\$	959.1	\$	1.3	0.6%	28.4%	2.52x	2.38x	10.3x	8.8	
Telehealth																	
1Life Healthcare, Inc.	NasdaqGS:ONEM	\$	43.65	97.3% - 291.0%	\$	5,916.9	\$	335.8	\$	(71.0)	-21.1%	-257.1%	17.62x	12.42x	na	na	
Allscripts Healthcare Solutions, Inc.	NasdaqGS:MDRX	\$	14.44	96.9% - 316.7%		3,259.0		1,676.0		69.8	4.2%	12.8%	1.94x	2.10x	46.7x	12.9	
BioTelemetry, Inc.	NasdaqGS:BEAT	\$	72.08	98.6% - 263.5%		2,705.7		414.8		98.6	23.8%	11.9%	6.52x	5.29x	27.4x	19.6	
MTBC, Inc.	NasdaqGM:MTBC	\$	9.07	67.7% - 241.2%		108.7		88.8		(0.0)	0.0%	35.0%	1.22x	0.81x	na	4.2	
Ontrak, Inc.	NasdaqGM:OTRK	\$	61.79	74.1% - 722.7%		1,212.1		65.3		(17.1)	-26.1%	154.5%	18.55x	7.30x	na	nm	
SHL Telemedicine Ltd.	SWX:SHLTN	\$	13.45	100.0% - 275.5%		202.4		39.6		4.6	11.6%	na	5.12x	na	43.9x	na	
Teladoc Health, Inc.	NYSE:TDOC	\$	199.96	79.0% - 246.0%		29,274.7		867.1		18.8	2.2%	67.7%	33.76x	15.00x	nm	nm	
Welltower Inc.	NYSE:WELL	\$	64.62	71.8% - 266.3%		40,754.9		4,746.8		2,048.5	43.2%	9.6%	8.59x	8.90x	19.9x	21.8	
		Ме	an	85.7% - 327.8%	\$	10,429.3	\$	1,029.3	\$	269.0	4.7%	4.9%	11.67x	7.40x	34.5x	14.6	
		Me	dian	88.0% - 270.9%	\$	2,982.4	\$	375.3	\$	11.7	3.2%	12.8%	7.55x	7.30x	35.7x	16.2	

Market value equals price per share times number of diluted shares outstanding. Enterprise value equals market value plus debt, preferred stock, and non controlling interests, less cash.

SELECTED PUBLIC COMPANIES - SERVICES (CONT.)

Selected Companies Review

(\$ in thousands, except per security)

				Market Statistics				Me	trics	Valuation Benchmarks					
		Clos	ing Price	% of 52-week	E	nterprise	F	Revenue	EBITDA	EBITDA	EBITDA	EV / Re	venue	EV / EI	BITDA
Company	Ticker	31	-Dec-20	High-Low		Value		LTM	LTM	LTM Margin	2022 E Growth	LTM	2021 E	LTM	2021 E
Facilities-Based & Practices															
Acadia Healthcare Company, Inc.	NasdaqGS:ACHC	\$	50.26	98.6% - 453.2%	\$	7,868.5	\$	3,146.7	\$ 561.8	17.9%	6.2%	2.50x	2.30x	14.0x	12.0x
Amedisys, Inc.	NasdaqGS:AMED	\$	293.33	98.3% - 220.6%		10,067.5		2,021.5	230.5	11.4%	13.9%	4.98x	4.37x	43.7x	31.5x
Brookdale Senior Living Inc.	NYSE:BKD	\$	4.43	51.7% - 301.4%		5,841.7		3,145.3	441.2	14.0%	37.1%	1.86x	1.80x	13.2x	20.4x
Capital Senior Living Corporation	NYSE:CSU	\$	12.34	24.1% - 182.8%		936.3		396.7	39.0	9.8%	na	2.36x	na	24.0x	na
Community Health Systems, Inc.	NYSE:CYH	\$	7.43	67.3% - 330.2%		13,105.7		11,955.0	1,046.0	8.7%	3.0%	1.10x	1.07x	12.5x	8.3x
DaVita Inc.	NYSE:DVA	\$	117.40	99.8% - 188.7%		25,057.3		11,543.9	2,425.0	21.0%	5.0%	2.17x	2.13x	10.3x	10.3x
Encompass Health Corporation	NYSE:EHC	\$	82.69	94.9% - 172.2%		12,050.7		4,614.4	856.5	18.6%	9.0%	2.61x	2.39x	14.1x	12.0x
Fresenius Medical Care AG & Co. KGaA	XTRA:FME	\$	83.43	84.1% - 127.5%		39,884.8		21,182.3	3,834.7	18.1%	6.4%	1.88x	1.80x	10.4x	8.4x
Genesis Healthcare, Inc.	NYSE:GEN	\$	0.48	26.1% - 120.9%		3,444.0		4,122.6	(74.7)	-1.8%	na	0.84x	0.91x	na	8.0x
Hanger, Inc.	NYSE:HNGR	\$	21.99	78.1% - 194.4%		1,356.0		1,024.7	112.1	10.9%	7.4%	1.32x	1.17x	12.1x	10.3x
HCA Healthcare, Inc.	NYSE:HCA	\$	164.46	98.6% - 281.7%		83,892.1		50,763.0	9,589.0	18.9%	6.5%	1.65x	1.55x	8.7x	8.0x
MEDNAX, Inc.	NYSE:MD	\$	24.54	88.0% - 333.0%		3,486.1		3,509.7	452.3	12.9%	8.1%	0.99x	1.89x	7.7x	13.7x
National HealthCare Corporation	AMEX:NHC	\$	66.41	75.2% - 118.8%		928.6		985.5	83.4	8.5%	na	0.94x	na	11.1x	na
Oak Street Health, Inc.	NYSE:OSH	\$	61.16	95.0% - 174.8%		14,335.9		807.7	(122.8)	-15.2%	-78.5%	17.75x	11.34x	na	na
RadNet, Inc.	NasdaqGM:RDNT	\$	19.57	83.5% - 336.8%		2,180.3		1,090.4	126.7	11.6%	5.3%	2.00x	1.79x	17.2x	12.5x
Select Medical Holdings Corporation	NYSE:SEM	\$	27.66	96.7% - 276.6%		8,279.4		5,445.8	669.5	12.3%	4.4%	1.52x	1.42x	12.4x	10.9x
Surgery Partners, Inc.	NasdaqGS:SGRY	\$	29.01	98.5% - 725.3%		5,652.9		1,829.0	279.3	15.3%	na	3.09x	2.68x	20.2x	17.8x
Tenet Healthcare Corporation	NYSE:THC	\$	39.93	93.3% - 399.3%		19,021.8		17,531.0	2,356.0	13.4%	7.0%	1.09x	0.99x	8.1x	6.7x
The Ensign Group, Inc.	NasdaqGS:ENSG	\$	72.92	94.4% - 303.1%		4,987.8		2,333.8	260.0	11.1%	9.6%	2.14x	1.87x	19.2x	15.1x
Universal Health Services, Inc.	NYSE:UHS	\$	137.50	92.7% - 210.9%		14,645.2		11,368.2	1,887.2	16.6%	5.0%	1.29x	1.22x	7.8x	7.9x
		Мес	n	81.9% - 272.6%	\$	13,851.1	\$	7,940.9	\$ 1,252.6	11.7%	3.5%	2.70x	2.37x	14.8x	12.6x
		Мес	dian	93.0% - 248.6%	\$	8,073.9	\$	3,328.2	\$ 446.7	12.6%	6.4%	1.87x	1.80x	12.4x	10.9x

Market value equals price per share times number of diluted shares outstanding. Enterprise value equals market value plus debt, preferred stock, and non controlling interests, less cash.

James S. Cassel

Chairman jcassel@cs-ib.com 305-438-7701 Deborah F. Aghib, Ph.D.

Managing Director, Healthcare daghib@cs-ib.com
305-438-7817

Margery Fischbein

Managing Director, Healthcare mfischbein@cs-ib.com 305-438-7816

Ira Z. Leiderman

Managing Director, Healthcare ileiderman@cs-ib.com

801 Brickell Ave.

Suite 1900

Miami, Florida 33131

www.casselsalpeter.com

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