

Healthcare Investment Banking Q3 2022 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 (Prior), 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 Cassel Chairman



Laura Salpeter Director



Scott Salpeter President



Marcus Wai Vice President



Philip Cassel Managing Director



Chris Mansueto Vice President



Ira Leiderman Managing Director



Edward Kropf Associate



Deborah Aghib Managing Director



Tahz Rashid Associate



Margery Fischbein Managing Director



Charles Davis Associate



Joseph Smith Director



Francisco Belliard Analyst

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

We live in confusing times. It is now more than two and a half years since the World Health Organization declared COVID-19 a pandemic.¹ In the ensuing years, the world as we know it has been turned on its head.² The pandemic has changed how we live our lives, either directly or indirectly. People have generally become knowledgeable about the different types of face masks that are broadly available and the differences between molecular or PCR testing and rapid antigen tests. We have become amateur epidemiologists watching rates of infections, hospitalizations, and deaths. We have all begrudgingly become accustomed to supply chain issues and changes in how we work, socialize, and travel.

Approximately one month ago, the CDC again changed their guidelines on how to live with the SARS-CoV-2 virus.³ These new guidelines leave more to personal choice regarding how we deal with SARS-CoV-2 infections. These new guidelines also bring to mind the title of Stanley Kubrick's classic 1964 film: "Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb." Now in 2022, we can paraphrase the title as "Dr. Strangetimes or: How I Learned to Stop Worrying and Live with the Virus."

Even though President Biden stated on national television that the pandemic is over, we are still officially in the pandemic, although at least for now it appears that the worst may be behind us.^{4, 5} But even if the pandemic is over, the SARS-CoV-2 virus is endemic. As we have discussed in a previous report, an endemic virus is one that has become part of our world.⁶ SARS-CoV-2 is here to stay and from time to time may rear its angry head. So how do we stop worrying and maybe not love but learn to live with the virus?

¹ WHO Director-General's media briefing March 11, 2020

² New Census Data Shows How Much Pandemic Changed American Lives. Medscape Oncology; September 15, 2022

³ CDC streamlines COVID-19 guidance ...; Centers for Disease Control and Prevention, Press Release, August 11, 2022

⁴ As said to Scott Pelley on "60 Minutes" September 18, 2022

⁵ There is no set formula as to what constitutes the beginning or end of a pandemic. A pandemic is declared by national or international groups responsible for the public's health. The same group can the declare that the pandemic has ended. See STAT News; Is the Covid-19 pandemic over? September 19, 2022

⁶ Cassel Salpeter & Co. Q1 2022 Healthcare Report: Is COVID-19 endemic yet.

Variants of the virus will undoubtedly continue to surface with some subtle and not so subtle changes. The subtle changes are mostly in the spike proteins that are on the surface of the virus.⁷ These changes have led to immune escape. In other words, the immunity that we may have developed, whether from infection, immunization, or both, may not offer the protection from a new infection that we would hope to achieve. It has also been reported that the incubation period, the time from infection to symptoms, may have shortened by several days.⁸ But the good news is that the number of hospitalizations and the death rate seems to have decreased significantly, in large part due to vaccinations.⁹ But this doesn't make COVID-19 any less serious. The long-term effects of infection are only now being discerned, and for some it does not look pretty.¹⁰

So how do we live with the virus? We could be trite and say "cautiously," but that could be said about a lot of things. Seriously though: believe the data. We have learned a lot about COVID-19 since March 2020 and "knowledge itself is power," as put forth by Sir Francis Bacon. What knowledge have we gained? What power do we have? Well, now we really understand how the virus is transmitted and what we can do to avoid exposure. But the power that we have is to get vaccinated.

When the COVID-19 vaccines were first developed, it was hoped that they would prevent infection and thus sterilize the population so that the virus would be contained. Unfortunately, for the most part, this has not been the case. What is exciting, however, is that if a fully vaccinated person does develop COVID-19, he or she tends to have significantly less severe disease which equates to lower rates of hospitalization and death. Unfortunately, only about 68% of the population of the United States is fully vaccinated. Fully vaccinated means having received your initial doses of the original vaccines as well as receiving follow-up boosters. The predominance of documented cases of severe disease and COVID-19 related deaths have been among the unvaccinated population. Considering that more than 600 million doses of vaccine have been administered in the United States, any claims that the vaccines are unsafe or "untested" are nonsensical. There is no excuse for not being fully vaccinated.

⁷ Tracking the amino acid changes of spike proteins ...; iScience 25:1, January 21, 2022

⁸ Incubation Period of COVID-19 Caused by Unique SARS-CoV-2 Strains. JAMA Network Open, August 22, 2022

⁹ Effectiveness of CoronaVac ...Lancet Infectious Diseases 22:6, June 1, 2022

¹⁰ Long-Term Sequelae of COVID-19. Pathogens; 11:2, February 19, 2022

¹¹ Sir Francis Bacon in Meditationes Sacrae; 1597

¹² Johns Hopkins Coronavirus Resource Center; September 22, 2022

¹³ COVID-19 Incidence and Death Rates Among Unvaccinated and Fully Vaccinated Adults ... Centers for Disease Control and Prevention, Morbidity and Mortality Weekly Report; January 28, 2022

And now for the confusing part: which booster should we get? At this point, the most commonly available boosters are bivalent, meaning that they have been engineered for the original virus and the variants that are currently predominant in the United States.¹⁴ This type of booster is produced by both Pfizer and Moderna. Both are biologically similar and are FDA approved. A third booster produced by Novavax which is biologically different than the Pfizer and Moderna boosters but gives the recipient similar protection, has been approved in the European Union and is pending approval in the United States.^{15, 16}

With everyone getting used to the "new normal," we are looking forward to holidays with our families, vacations with friends, and hopefully fewer work and school interruptions. But to maintain this new sense of normal, everyone must stay up to date on their vaccines. New variants of SARS-CoV-2 are appearing which will undoubtedly require newer boosters. It is clear that boosters, like the virus, will be part of the new normal. Hopefully, research on newer vaccines that will offer broader protection will bear fruit and those next-gen vaccines will become part of a yearly routine like the flu shot.¹⁷

¹⁴ Eric Topol, MD in Ground Truths; September 18, 2022

¹⁵ Yale Medicine, Family Health; August 31, 2022

¹⁶ Novavax, Inc.; Press release, September 1, 2022

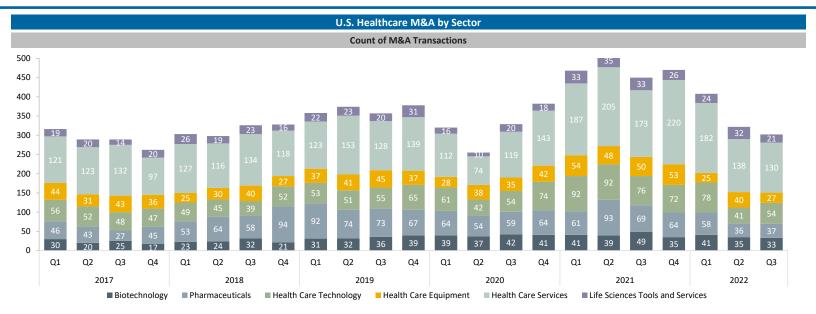
¹⁷ Fighting current and future coronaviruses with a single vaccine. NIH Research Matters; August 16, 2022

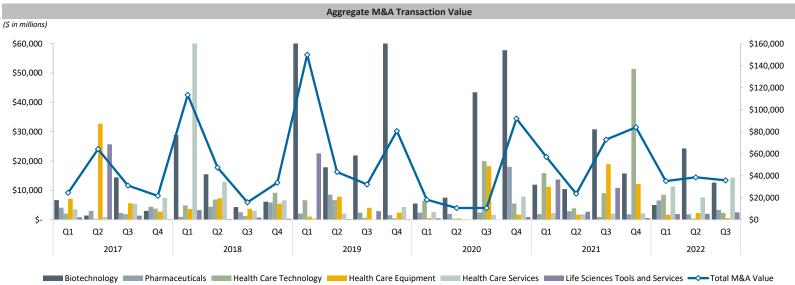
I HEALTHCARE REVIEW

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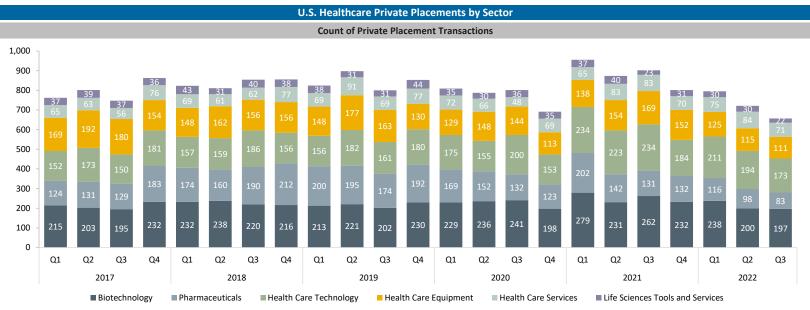
M&A & PRIVATE PLACEMENTS REVIEW

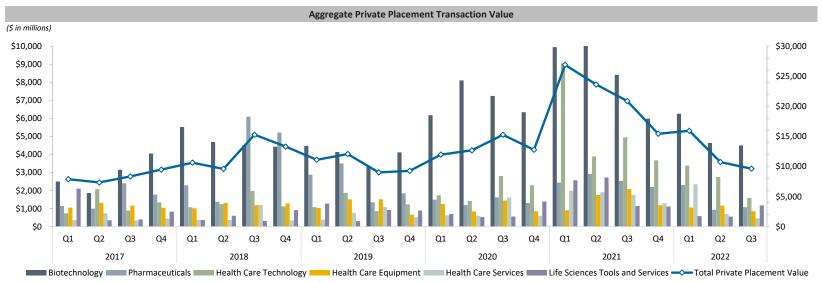
III PUBLIC MARKETS REVIEW



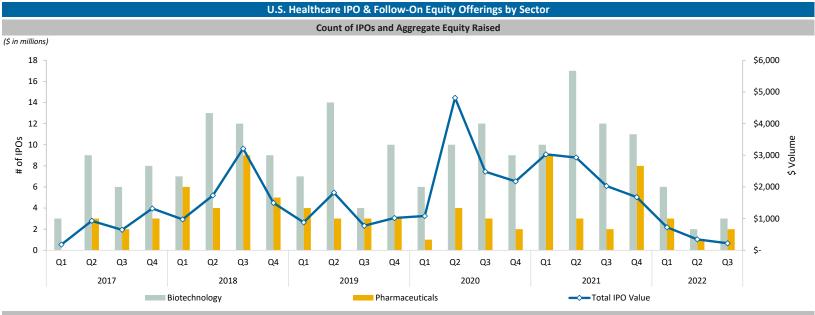


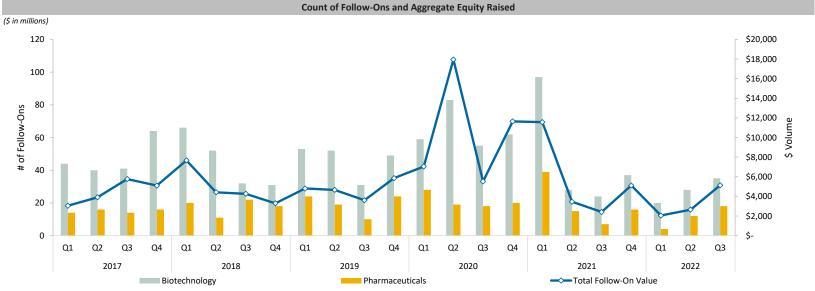
Note: Q1 2018 total transaction value for Health Care Services was \$71,655 and Q1 2019 total transaction value for Biotechnology was \$116,936. Sources of information: S&P Capital IQ.

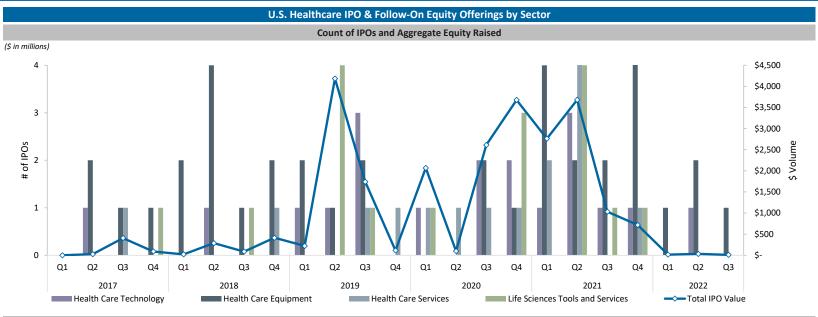


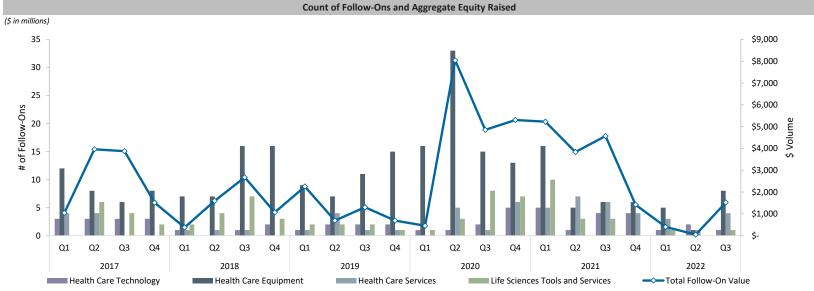


III	PUBLIC MARKETS REVIEW
II	M&A & PRIVATE PLACEMENTS REVIEW
I	HEALTHCARE REVIEW

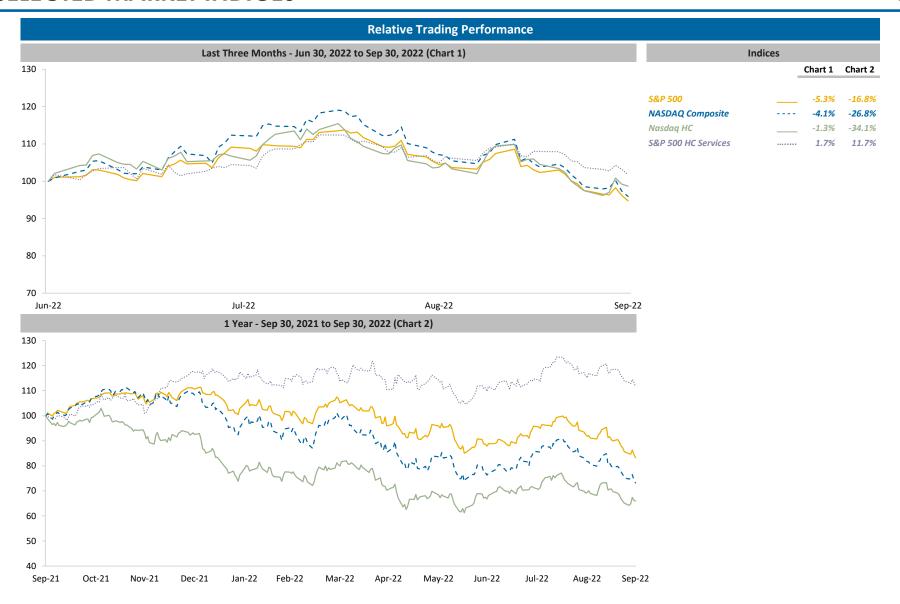








Note: Q2 2021 total count of IPOs for Health Care Services was 5 and Q4 2021 total count of IPOs for Health Care Equipment was 8.



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(\$ in thousands, except per security)

				Market Statistics				Me	trics	Valuation Benchmarks				
		Clos	sing Price	% of 52-week	Enterprise	Revenue	EBITDA		EBITDA	EBITDA	EV / Re	venue	EV / EI	BITDA
Company	Ticker	30-Sep-22		High-Low	Value	LTM	LTM		LTM Margin	2022 E Growth	LTM	2021 E	LTM	2021 E
Vaccines							Т							
AstraZeneca PLC	LSE:AZN	\$	110.81	86.2% - 122.9%	\$ 196,011.3	\$ 44,038.0	\$	12,522.0	28.4%	27.8%	4.45x	5.41x	15.7x	18.1x
Bavarian Nordic A/S	CPSE:BAVA	\$	29.34	54.2% - 193.3%	1,769.5	260.2		(25.2)	-9.7%	-110.1%	6.80x	6.09x	na	nm
BioNTech SE	NasdaqGS:BNTX	\$	134.88	36.0% - 115.2%	23,269.8	22,152.3		16,078.4	72.6%	-28.1%	1.05x	1.19x	1.4x	1.5x
CSL Limited	ASX:CSL	\$	183.62	89.1% - 118.7%	87,818.3	10,561.9		3,324.9	31.5%	18.0%	8.31x	8.40x	26.4x	25.7x
CureVac N.V.	NasdaqGM:CVAC	C \$	7.88	15.1% - 112.7%	919.4	120.3		(872.6)	-725.3%	-69.2%	7.64x	10.82x	na	na
Dynavax Technologies Corporation	NasdaqCM:DVA	(\$	10.44	48.8% - 143.8%	1,060.0	672.6		267.0	39.7%	179.7%	1.58x	2.36x	4.0x	10.3x
GSK plc	LSE:GSK	\$	14.55	38.3% - 101.9%	83,247.8	45,251.8		13,502.6	29.8%	-26.4%	1.84x	1.81x	6.2x	6.1x
Inovio Pharmaceuticals, Inc.	NasdaqGS:INO	\$	1.73	22.2% - 125.0%	115.4	2.1		(337.3)	-15952.1%	15.3%	nm	nm	na	na
Johnson & Johnson	NYSE:JNJ	\$	163.36	87.5% - 104.9%	433,229.6	95,588.0		32,382.0	33.9%	1.6%	4.53x	4.59x	13.4x	13.1x
Merck & Co., Inc.	NYSE:MRK	\$	86.12	90.0% - 120.4%	240,087.1	57,169.0		23,481.0	41.1%	24.3%	4.20x	4.96x	10.2x	12.1x
Moderna, Inc.	NasdaqGS:MRNA	4 \$	118.25	31.4% - 102.8%	30,907.3	22,995.0		15,945.0	69.3%	-0.4%	1.34x	1.72x	1.9x	2.4x
Novavax, Inc.	NasdaqGS:NVAX	\$	18.20	7.7% - 102.0%	599.6	1,290.9		(1,384.4)	-107.2%	na	0.46x	0.47x	na	na
Pfizer Inc.	NYSE:PFE	\$	43.76	70.9% - 106.9%	253,615.6	101,275.0		43,521.0	43.0%	55.6%	2.50x	3.10x	5.8x	8.6x
Sanofi	ENXTPA:SAN	\$	76.88	73.5% - 102.6%	110,820.7	43,946.3		12,568.5	28.6%	3.5%	2.52x	2.58x	8.8x	8.3x
		Me	an	53.6% - 119.5%	\$ 104,533.7	\$ 31,808.8	\$	12,212.4	-1169.7%	7.0%	3.63x	4.12x	9.4x	10.6x
		Me	dian	51.5% - 114.0%	\$ 57,077.6	\$ 22,573.7	\$	12,545.2	30.7%	3.5%	2.52x	3.10x	7.5x	9.5x

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 **Enterprise** Revenue **EBITDA EBITDA EBITDA** EV / Revenue **EV / EBITDA** Ticker 30-Sep-22 High-Low LTM LTM LTM 2021 E LTM 2021 E Company Value LTM Margin 2022 E Growth Neurology AbbVie Inc. NYSE:ABBV 134.21 76.3% - 125.6% \$ 301,085.7 \$ 57,349.0 \$ 27,170.0 47.4% 8.1% 5.25x 5.35x 11.1x 10.3x Biogen Inc. NASDAQ:BIIB 267.00 91.8% - 142.7% 40,386.7 10,633.6 3,500.2 32.9% -13.2% 3.80x 3.72x 11.5x 9.3x Eli Lilly and Company NYSE:LLY Ś 323.35 94.6% - 144.2% 320,876.8 29.070.7 10,424.0 35.9% -1.1% 11.04x 11.38x 30.8x 32.9x 163.36 433.229.6 Johnson & Johnson NYSE:JNJ 87.5% - 104.9% 95.588.0 32,382.0 33.9% 1.6% 4.53x 4.59x 13.4x 13.1x Pfizer Inc. NYSE:PFE Ś 43.76 70.9% - 106.9% 253,615.6 101,275.0 43,521.0 43.0% 55.6% 2.50x 3.10x 5.8x 8.6x Regeneron Pharmaceuticals, Inc. NasdagGS:REGN 688.87 91.3% - 128.0% 65.641.8 14.226.8 7.376.8 51.9% -38.0% 4.61x 4.19x 8.9x 6.8x Roche Holding AG SWX:ROG Ś 329.57 80.0% - 108.4% 298.618.2 72.649.8 26,012.9 35.8% -7.0% 4.11x 4.37x 11.5x 10.6x Sanofi **ENXTPA:SAN** \$ 76.88 73.5% - 102.6% 110,820.7 43,946.3 12,568.5 28.6% 3.5% 2.52x 2.58x 8.8x 8.3x Takeda Pharmaceutical Company Limited TSE:4502 \$ 26.04 92.7% - 125.9% 71.262.4 26,432.2 7,577.0 28.7% -16.9% 2.70x 2.40x 9.4x 7.3x Tonix Pharmaceuticals Holding Corp. NASDAQ:TNXP \$ 0.53 2.7% - 102.7% (89.1)(97.6)na na na na na na \$ 50,130.2 Mean 76.1% - 119.2% \$ 189,544.8 \$ 17,043.5 37.5% -0.8% 4.56x 4.63x 12.4x 11.9x Median 83.8% - 117.0% \$ 182.218.2 \$ 43.946.3 \$ 11,496.2 35.8% -1.1% 4.11x 4.19x 11.1x 9.3x **Anti-Infectives** 67.9% - 100.1% \$ 178,103.6 Abbott Laboratories NYSE:ABT \$ 96.76 \$ 45,548.0 \$ 13,951.0 30.6% -5.0% 3.91x 4.22x 12.8x 14.2x Cipla Limited NSEI:CIPLA 13.70 98.8% - 131.2% 10.717.5 2.737.8 557.0 20.3% -8.9% 3.91x 3.79x 19.2x 17.6x Hikma Pharmaceuticals PLC LSE:HIK \$ 15.19 54.6% - 115.9% 4,421.2 2,550.0 762.0 29.9% -8.1% 1.73x 1.76x 5.8x 6.0x Johnson & Johnson NYSE:JNJ 163.36 87.5% - 104.9% 433.229.6 95.588.0 32.382.0 33.9% 1.6% 4.53x 4.59x 13.4x 13.1x Merck & Co., Inc. NYSE:MRK \$ 86.12 90.0% - 120.4% 240,087.1 57,169.0 23,481.0 41.1% 24.3% 4.20x 4.96x 10.2x 12.1x \$ Viatris Inc. NasdaqGS:VTRS 8.52 54.6% - 101.2% 30,849.6 17,186.7 5,242.1 30.5% -8.8% 1.79x 1.73x 5.9x 4.8x Novartis AG SWX:NOVN Ś 76.96 85.4% - 103.7% 179.275.8 52.788.0 18.429.0 34.9% -4.0% 3.40x 3.45x 9.7x 9.8x Pfizer Inc. NYSE:PFE 43.76 70.9% - 106.9% 253.615.6 101.275.0 43,521.0 43.0% 55.6% 2.50x 3.10x 5.8x 8.6x Sun Pharmaceutical Industries Limited NSEI:SUNPHARMA \$ 11.66 98.1% - 129.3% 26,948.4 5,023.8 1,292.5 25.7% -2.7% 5.36x 5.35x 20.9x 20.0x Teva Pharmaceutical Industries Limited NYSE:TEVA Ś 8.07 71.2% - 119.0% 30.148.3 15.433.0 4.243.0 27.5% -2.3% 1.95x 1.87x 7.1x 6.2x Mean 77.9% - 113.3% \$ 138,739.7 \$ 39,529.9 \$ 14,386.1 31.7% 4.2% 3.33x 3.48x 11.1x 11.2x Median 78.3% - 111.4% \$ 104,476.6 \$ 31,367.4 9,596.6 30.6% -3.3% 3.65x 3.62x 10.0x 11.0x

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SELECTED PUBLIC COMPANIES - PHARMA (CONT.)

(\$ in thousands, except per security) **Market Statistics** Metrics **Valuation Benchmarks Closing Price** % of 52-week Enterprise Revenue **EBITDA EBITDA EBITDA** EV / Revenue **EV / EBITDA** Ticker LTM LTM LTM Margin 2022 E Growth LTM 2021 E LTM 2021 E Company 30-Sep-22 High-Low Value Cancer Immunotherapy Amgen Inc. NasdaqGS:AMGN \$ 225.40 87.2% - 113.5% \$ 150,032.3 \$ 26,384.0 \$ 13,178.0 49.9% 0.9% 5.69x 5.77x 11.4x 9.4x BioNTech SE NasdagGS:BNTX \$ 134.88 36.0% - 115.2% 23,269.8 22,152.3 16,078.4 72.6% -28.1% 1.05x 1.19x 1.4x 1.5x Bristol-Myers Squibb Company NYSE:BMY Ś 47,144.0 70.55 87.5% - 132.6% 182.443.7 21,135.0 44.8% -6.8% 3.87x 3.93x 8.6x 8.3x NasdaqGS:BLUE bluebird bio, Inc. 6.33 24.9% - 220.9% 608.0 (485.0)-7964.5% -62.1% nm 12.67x na na Celldex Therapeutics, Inc. NasdaqCM:CLDX \$ 28.11 49.1% - 141.6% 962.0 0.8 (88.2)-10722.4% na nm nm na na Cellectis S.A. 2.38 63.8 29.6 -2.2% **ENXTPA:ALCLS** 21.8% - 111.7% (133.6)-452.0% 2.16x 1.02x na na Gilead Sciences, Inc. NasdagGS:GILD \$ 61.69 96,038.2 27,515.0 13,213.0 48.0% -15.8% 7.3x 83.2% - 107.9% 3.49x 3.60x 6.2x **Incyte Corporation** NasdaqGS:INCY \$ 66.64 78.5% - 107.6% 12,146.6 3,320.5 797.3 24.0% 3.4% 3.66x 4.15x 15.2x 16.1x Merck & Co., Inc. NYSE:MRK Ś 86.12 90.0% - 120.4% 240,087.1 57,169.0 23,481.0 41.1% 24.3% 4.20x 4.96x 10.2x 12.1x \$ Novartis AG 76.96 52,788.0 9.7x SWX:NOVN 85.4% - 103.7% 179,275.8 18,429.0 34.9% -4.0% 3.40x 3.45x 9.8x Regeneron Pharmaceuticals, Inc. NasdaqGS:REGN \$ 688.87 91.3% - 128.0% 65,641.8 14,226.8 7,376.8 51.9% -38.0% 4.61x 4.19x 8.9x 6.8x 66.8% - 127.6% \$ 22,794.2 \$ 10,271.1 -1706.5% Mean \$ 86,415.4 -12.8% 3.57x 4.49x 9.1x 8.8x Median 83.2% - 115.2% \$ 65,641.8 \$ 22,152.3 \$ 13,178.0 41.1% -5.4% 3.66x 4.04x 9.3x 8.9x Cardiovascular AstraZeneca PLC LSE:AZN Ś 110.81 86.2% - 122.9% \$ 196,011.3 \$ 44,038.0 \$ 12,522.0 28.4% 27.8% 4.45x 5.41x 15.7x 18.1x Bayer Aktiengesellschaft XTRA:BAYN \$ 46.49 81,591.1 50,550.9 13.6% 2.1% 1.61x 1.66x 69.7% - 108.0% 6,851.3 11.9x 6.4x **Bristol-Myers Squibb Company** NYSE:BMY \$ 70.55 87.5% - 132.6% 182,443.7 47,144.0 21,135.0 44.8% -6.8% 3.87x 3.93x 8.6x 8.3x Gilead Sciences, Inc. NasdaqGS:GILD \$ 61.69 83.2% - 107.9% 96,038.2 27,515.0 13,213.0 48.0% -15.8% 3.49x 3.60x 7.3x 6.2x

433,229.6

179,275.8

253,615.6

110,820.7

\$ 171.103.9

\$ 179,275.8

6,909.3

95,588.0

52,788.0

101,275.0

43,946.3

1,788.7

\$ 47,144.0

\$ 51.626.0

32,382.0

18,429.0

43,521.0

12,568.5

\$ 17.951.2

\$ 13,213.0

939.1

33.9%

34.9%

43.0%

28.6%

52.5%

36.4%

34.9%

1.6%

-4.0%

55.6%

3.5%

46.3%

12.3%

2.1%

4.53x

3.40x

2.50x

2.52x

3.86x

3.36x

3.49x

4.59x

3.45x

3.10x

2.58x

4.06x

3.60x

3.60x

13.4x

9.7x

5.8x

8.8x

7.4x

9.8x

8.8x

Selected Companies Review

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.

87.5% - 104.9%

85.4% - 103.7%

70.9% - 106.9%

73.5% - 102.6%

85.3% - 132.2%

81.0% - 113.5%

85.3% - 107.9%

Sources of information: S&P Capital IQ.

United Therapeutics Corporation

NYSE:JNJ

SWX:NOVN

ENXTPA:SAN

NasdagGS:UTHR \$

NYSE:PFE

\$ 163.36

\$

\$

\$

Mean

Median

76.96

43.76

76.88

209.38

Johnson & Johnson

Novartis AG

Pfizer Inc.

Sanofi

13.1x

9.8x

8.6x

8.3x

10.4x

9.9x

8.6x

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(\$ in thousands, except per security)

		Market Statistics									Me	trics		Valuation E	Benchmark:	s	
		Closing Price 30-Sep-22		% of 52-week High-Low		Enterprise Value		Revenue LTM		EBITDA LTM		EBITDA	EBITDA	EV / Revenue		EV / EI	BITDA
Company	Ticker											LTM Margin 2	2022 E Growth	LTM	2021 E	LTM	2021 E
Imaging																	
FUJIFILM Holdings Corporation	TSE:4901	\$	45.68	68.6% -	101.5%	\$	19,338.9	\$	18,904.8	\$	2,647.1	14.0%	-14.0%	1.02x	0.90x	7.3x	6.4x
General Electric Company	NYSE:GE	\$	61.91	53.3% -	103.3%		86,891.6		74,559.0		7,827.0	10.5%	13.7%	1.17x	1.16x	11.1x	11.3x
Hitachi, Ltd.	TSE:6501	\$	42.26	82.0% -	128.7%		61,121.9		77,025.4		7,562.7	9.8%	-13.9%	0.79x	0.71x	8.1x	5.9x
Hologic, Inc.	NasdaqGS:HOLX	\$	64.52	80.2% -	104.8%		16,615.8		5,226.2		2,359.0	45.1%	-32.9%	3.18x	3.18x	7.0x	7.0x
Intelligent Ultrasound Group plc	AIM:IUG	\$	0.14	66.2% -	104.3%		33.6		12.0		(3.4)	-28.2%	-32.6%	2.81x	3.26x	na	na
Koninklijke Philips N.V.	ENXTAM:PHIA	\$	15.69	38.1% -	105.4%		20,439.6		17,974.1		1,369.4	7.6%	-28.5%	1.14x	1.04x	14.9x	5.8x
Shenzhen Mindray Bio-Medical Electronics Co	SZSE:300760	\$	42.03	74.3% -	118.0%		49,171.4		4,156.7		1,534.7	36.9%	7.8%	11.83x	12.24x	32.0x	33.5×
Siemens Healthineers AG	XTRA:SHL	\$	43.42	65.4% -	109.8%		62,602.7		21,825.2		3,814.6	17.5%	-2.1%	2.87x	2.89x	16.4x	14.6x
Toshiba Corporation	TSE:6502	\$	35.58	86.7% -	129.0%		17,393.8		25,023.7		1,115.9	4.5%	-13.7%	0.70x	0.61x	15.6x	8.1x
		Мес	an	68.3% -	111.6%	\$	37,067.7	\$	27,189.7	\$	3,136.3	13.1%	-12.9%	2.83x	2.89x	14.1x	11.6x
		Med	dian	68.6% -	105.4%	\$	20,439.6	\$	18,904.8	\$	2,359.0	10.5%	-13.9%	1.17x	1.16x	13.0x	7.5x
Robotic Surgery																	
Accuray Incorporated	NasdaqGS:ARAY	\$	2.08	35.1% -	122.4%	\$	305.4	\$	429.9	\$	13.7	3.2%	-20.8%	0.71x	0.72x	22.4x	10.9×
Globus Medical, Inc.	NYSE:GMED	\$	59.57	72.8% -	113.3%		5,140.6		973.9		263.1	27.0%	7.8%	5.28x	5.40x	19.5x	15.7x
Intuitive Surgical, Inc.	NasdaqGS:ISRG	\$	187.44	50.7% -	101.4%		63,287.0		5,963.8		2,028.6	34.0%	-5.9%	10.61x	11.06x	31.2x	24.3x
Smith & Nephew plc	LSE:SN.	\$	11.71	76.1% -	106.6%		12,379.7		5,213.0		1,196.0	22.9%	0.9%	2.37x	2.37x	10.4x	9.3x
Stereotaxis, Inc.	NYSEAM:STXS	\$	1.80	24.9% -	104.7%		113.1		30.5		(17.0)	-55.6%	38.7%	3.70x	3.33x	na	na
Stryker Corporation	NYSE:SYK	\$	202.54	72.2% -	107.3%		89,981.8		17,629.0		4,548.0	25.8%	0.8%	5.10x	5.28x	19.8x	18.5
Zimmer Biomet Holdings, Inc.	NYSE:ZBH	\$	104.55	68.9% -	104.1%		27,669.9		7,916.5		2,431.2	30.7%	-9.0%	3.50x	3.52x	11.4x	11.0x
		Мес	an	57.3% -	108.5%	\$	28,411.1	\$	5,451.0	\$	1,494.8	12.6%	1.8%	4.47x	4.53x	19.1x	14.9x
		Мес	dian	68.9% -	106.6%	\$	12,379.7	\$	5,213.0	Ś	1,196.0	25.8%	0.8%	3.70x	3.52x	19.7x	13.3x

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.)

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Selected Companies Review (\$ in thousands, except per security) **Market Statistics** Metrics **Valuation Benchmarks Closing Price** % of 52-week Enterprise Revenue **EBITDA EBITDA EBITDA** EV / Revenue **EV / EBITDA** Ticker 30-Sep-22 Value LTM LTM LTM Margin 2022 E Growth LTM 2021 E LTM 2021 E Company High-Low Orthopedics **CONMED Corporation** NYSE:CNMD \$ 80.17 50.4% - 104.0% \$ 3,398.7 \$ 1,042.3 \$ 180.4 17.3% 5.0% 3.26x 3.36x 18.8x 17.0x \$ **Enovis Corporation** NYSE:ENOV 46.07 28.1% - 101.5% 2,663.3 3,957.7 579.3 14.6% -60.8% 0.67x 0.69x 4.6x 4.4x Medtronic plc NYSE:MDT Ś 62.7% - 100.4% 121,810.1 31,070.0 28.2% -5.4% 3.92x 3.81x 13.9x 80.75 8,761.0 12.4x NasdagGS:NUVA \$ NuVasive, Inc. 43.81 69.0% - 106.0% 3,058.1 1,174.1 193.6 16.5% 12.8% 2.60x 2.69x 15.8x 11.6x Orthofix Medical Inc. NasdaqGS:OFIX \$ 19.11 47.8% - 100.7% 349.6 462.0 17.8 3.9% -5.7% 0.76x0.75x 19.6x 6.1x \$ 2.37x Smith & Nephew plc LSE:SN. 11.71 5,213.0 0.9% 2.37x 9.3x 76.1% - 106.6% 12,379.7 1,196.0 22.9% 10.4x Stryker Corporation NYSE:SYK \$ 202.54 72.2% - 107.3% 89,981.8 17,629.0 4,548.0 25.8% 0.8% 5.10x 5.28x 19.8x 18.5x Zimmer Biomet Holdings, Inc. NYSE:ZBH 104.55 68.9% - 104.1% 27,669.9 7,916.5 2,431.2 30.7% -9.0% 3.50x 3.52x 11.4x 11.0x 59.4% - 103.8% \$ 2,238.4 Mean \$ 32,663.9 \$ 8,558.1 20.0% -7.7% 2.77x 2.81x 14.3x 11.3x Median 65.8% - 104.1% \$ 7,889.2 \$ 4,585.3 \$ 887.7 -2.3% 2.93x 3.02x 20.1% 14.9x 11.3x Cardiovascular **Abbott Laboratories** 96.76 \$ 178,103.6 45,548.0 13,951.0 30.6% -5.0% 4.22x 12.8x 14.2x NYSE:ABT 67.9% - 100.1% 3.91x Baxter International Inc. \$ 53.86 60.0% - 100.1% 42,478.0 14,193.0 3,254.0 22.9% 17.0% 2.99x 3.37x NYSE:BAX 13.1x 14.1x Becton, Dickinson and Company NYSE:BDX 222.83 79.4% - 100.1% 77,642.6 20,075.0 5,456.0 27.2% -2.3% 3.87x 3.94x 14.2x 14.9x **Boston Scientific Corporation** NYSE:BSX Ś 38.73 81.5% - 110.7% 64,707.8 12,329.0 3,241.0 26.3% 6.8% 5.25x 5.45x 20.0x 18.7x **Edwards Lifesciences Corporation** NYSE:EW \$ 82.63 33.3% 9.47x 9.65x 28.5x 62.7% - 100.9% 50,727.4 5,355.0 1,782.3 11.9% 28.7x Medtronic plc NYSE:MDT \$ 80.75 62.7% - 100.4% 121,810.1 31,070.0 8,761.0 28.2% -5.4% 3.92x 3.81x 13.9x 12.4x Mean 69.0% - 102.1% \$ 89,244.9 \$ 21,428.3 \$ 6,074.2 28.1% 3.8% 4.90x 5.07x 17.1x 17.2x

\$ 71,175.2

\$

4,355.0

27.7%

2.3%

3.92x

4.08x

14.1x

14.5x

\$ 17,134.0

65.3% - 100.3% 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.

					Se	lect	ed Com	pani	ies Revie	w							
(\$ in thousands, except per security)																	
				Market S	tatistics						Me	trics			Valuation	Benchmark	s
		Closing Price % of 52-week			Enterprise		F	Revenue		EBITDA	EBITDA	EBITDA	EV / Re	venue	EV / E	3ITDA	
Company	Ticker	30	-Sep-22	High-Low		Value		LTM			LTM	LTM Margin	2022 E Growth	LTM	2021 E	LTM	2021 E
Diagnostics/Lab Testing																	
Enzo Biochem, Inc.	NYSE:ENZ	\$	2.23	53.7% -	112.5%	\$	97.9	\$	111.6	\$	(7.7)	-6.9%	na	0.88x	na	na	na
Exact Sciences Corporation	NASDAQ:EXAS	\$	32.49	31.1% -	102.8%		7,477.3		1,938.4		(538.5)	-27.8%	9.3%	3.86x	4.29x	na	na
Laboratory Corporation of America Holdings	NYSE:LH	\$	204.81	64.6% -	100.1%		23,852.7		15,715.2		3,480.1	22.1%	-25.3%	1.52x	1.49x	6.9x	5.8x
Myriad Genetics, Inc.	NASDAQ:MYGN	\$	19.08	57.7% -	119.1%		1,355.6		672.3		(40.3)	-6.0%	-81.5%	2.02x	1.97x	na	18.3x
NeoGenomics, Inc.	NASDAQ:NEO	\$	8.61	15.7% -	125.7%		1,229.0		489.3		(105.9)	-21.6%	3269.5%	2.51x	2.54x	na	na
Quest Diagnostics Incorporated	NYSE:DGX	\$	122.03	70.1% -	101.4%		18,393.5		10,582.0		2,560.0	24.2%	-29.1%	1.74x	1.72x	7.2x	6.4x
		Ме	an	48.8% -	110.3%	\$	8,734.3	\$	4,918.1	\$	891.3	-2.7%	628.6%	2.09x	2.40x	7.0x	10.2x
		Me	dian	55.7% -	107.6%	\$	4,416.4	\$	1,305.4	\$	(24.0)	-6.4%	-25.3%	1.88x	1.97x	7.0x	6.4x
Telehealth																	
1Life Healthcare, Inc.	NasdaqGS:ONEM	\$	17.15	69.7% -	288.7%	\$	3,785.4	\$	891.5	\$	(245.4)	-27.5%	271.9%	4.25x	6.19x	na	na
Allscripts Healthcare Solutions, Inc.	NasdaqGS:MDRX	\$	15.23	65.5% -	116.7%		1,432.4		1,521.7		111.3	7.3%	-42.8%	0.94x	0.95x	12.9x	4.9x
CareCloud, Inc.	NasdaqGM:MTBC	\$	4.18	48.5% -	143.2%		67.4		148.3		18.5	12.5%	1.7%	0.45x	0.48x	3.6x	2.9x
Ontrak, Inc.	NasdaqGM:OTRK	\$	0.47	3.2% -	103.1%		10.9		38.1		(37.9)	-99.5%	883.5%	0.29x	0.13x	na	na
SHL Telemedicine Ltd.	SWX:SHLTN	\$	16.51	81.0% -	117.4%		245.6		49.6		2.3	4.6%	na	4.95x	na	nm	na
Teladoc Health, Inc.	NYSE:TDOC	\$	25.35	16.2% -	100.1%		4,840.1		2,233.6		4.1	0.2%	-11.0%	2.17x	2.39x	nm	18.5x
Welltower Inc.	NYSE:WELL	\$	64.32	64.7% -	102.7%		46,242.9		5,417.3		42,215.6	779.3%	16.5%	8.54x	10.00x	1.1x	25.5x
		Ме	an	49.8% -	138.8%	\$	8,089.3	\$	1,471.5	\$	6,009.8	96.7%	186.6%	3.08x	3.36x	5.9x	12.9x
		Me	dian	64.7% -	116.7%	\$	1,432.4	\$	891.5	\$	4.1	4.6%	9.1%	2.17x	1.67x	3.6x	11.7x

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** Metrics Valuation Benchmarks **Closing Price** % of 52-week **Enterprise** Revenue **EBITDA EBITDA EBITDA** EV / Revenue EV / EBITDA Ticker 30-Sep-22 High-Low Value LTM LTM LTM Margin 2022 E Growth LTM 2021 E LTM 2021 E Company **Facilities-Based & Practices** Acadia Healthcare Company, Inc. NasdagGS:ACHC 78.18 90.1% - 156.1% 8,640.2 \$ 2,449.4 Ś 536.9 21.9% 10.6% 3.53x 3.72x 16.1x 15.7x \$ 11.9% -6.2% Amedisys, Inc. NasdaqGS:AMED 96.79 51.2% - 100.4% 3,729.0 2,215.9 263.4 1.68x 1.68x 14.2x 12.6x Brookdale Senior Living Inc. NYSE:BKD \$ 4.27 55.5% - 106.2% 5,553.9 2,496.6 189.3 7.6% 96.1% 2.22x 2.01x 29.3x 39.8x \$ Community Health Systems, Inc. NYSE:CYH 2.15 14.1% - 100.5% 13,450.6 12,392.0 1,461.0 11.8% -28.5% 1.09x 1.09x 9.2x 7.1x DaVita Inc. NYSE:DVA \$ 82.77 66.3% - 110.4% 21,042.4 11,626.6 2,296.6 19.8% -8.7% 1.81x 1.81x 9.2x 8.5x **Encompass Health Corporation** NYSE:EHC 45.23 59.8% - 102.0% 8,399.6 5,267.6 991.5 18.8% -16.3% 1.59x 1.64x 8.5x 8.1x \$ 28.47 Fresenius Medical Care AG & Co. KGaA XTRA:FME 45.6% - 103.0% 22,117.0 19,227.9 2,657.0 13.8% -17.0% 1.15x 1.10x 8.3x 5.7x HCA Healthcare, Inc. NYSE:HCA 183.79 65.9% - 111.7% 95,016.3 60,105.0 12,270.0 20.4% -4.9% 1.58x 7.7x 7.5x 1.61x \$ 16.51 2,137.2 1,959.7 263.7 5.6% 1.09x Pediatrix Medical Group, Inc. NYSE:MD 56.8% - 101.1% 13.5% 1.13x 8.1x 8.6x 63.34 82.5% - 102.2% 917.9 1,074.1 74.9 7.0% 0.85x 12.3x National HealthCare Corporation NYSEAM:NHC na na na Oak Street Health, Inc. NYSE:OSH \$ 24.52 50.2% - 184.5% 6,657.0 1,820.3 (427.2)-23.5% 29.3% 3.66x 4.67x na na RadNet, Inc. NasdaqGM:RDNT 20.35 58.7% - 123.8% 2,656.0 1,364.8 186.6 13.7% -4.2% 1.95x 2.00x 14.2x 12.4x **Select Medical Holdings Corporation** \$ 22.10 NYSE:SEM 59.7% - 103.3% 7,930.7 6,278.3 630.1 10.0% -24.1% 1.26x 1.29x 12.6x 8.3x Sonida Senior Living, Inc. 783.9 6.3 NYSE:SNDA 16.24 44.5% - 116.5% 204.1 3.1% na 3.84x na nm na Surgery Partners, Inc. NasdaqGS:SGRY \$ 23.40 36.6% - 100.3% 6,502.4 2,381.0 438.3 18.4% 17.1% 2.73x 2.91x 14.8x 20.0x **Tenet Healthcare Corporation** NYSE:THC Ś 51.58 55.7% - 104.3% 22.322.9 19.133.0 3.443.0 18.0% 4.5% 1.17x 1.14x 6.5x 6.7x 79.50 5,616.2 2,807.6 336.5 2.00x The Ensign Group, Inc. NasdaqGS:ENSG \$ 84.4% - 116.4% 12.0% 13.8% 2.13x 16.7x 16.6x Ś 88.18 0.88x Universal Health Services, Inc. NYSE:UHS 55.7% - 100.7% 11,424.9 13,047.6 1,681.4 12.9% -14.0% 0.91x 6.8x 6.0x Mean 57.4% - 113.5% \$ 13,605.5 Ś 9.214.0 \$ 1.516.6 11.7% 3.3% 1.89x 1.93x 12.2x 12.2x \$ Median 56.3% - 103.8% \$ 7,293.9 2,652.1 487.6 13.2% -4.6% 1.64x 1.66x 10.7x 8.5x

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.

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