



## US Pharma Sector M&A – 2Q & 3Q 2020 Dashboard

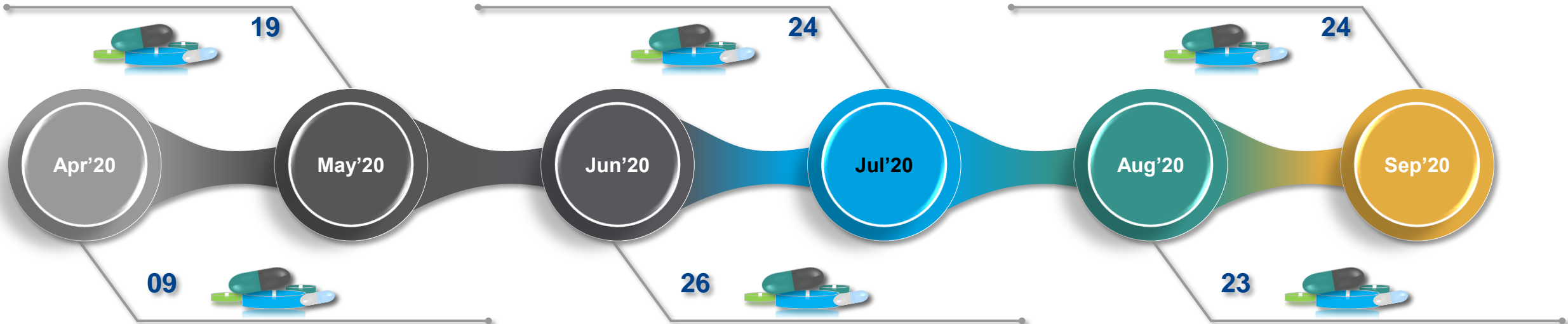
### Trends, Transactions and Takeaways

Deal volumes and average ticket size significantly off from last year. Oncology remained the preferred area for buyers, with cannabis being an interesting second, albeit in much smaller deals. Expect slow and measured M&A activity within the US pharma sector, at least for a few more quarters

# Pace of the US pharma M&A activity picking up gradually, but companies remain circumspect

- ❖ Since the start of Q2 2020, the US pharma market has seen a steady flow of M&A deals. However, both in terms of number of deals and average deal value, 2020 remains unexciting.
- ❖ Impact of the COVID-19 outbreak, one of the worst pandemics in generations, can still be felt across sectors and economies. Circumspection and wait-and-watch approach seem to have become the norm.
- ❖ Gilead Sciences' nearly USD18bn acquisition of Immunomedics and Bristol-Myers' USD13bn buyout of MyoKardia (in Q4 2020) are indicative of pick-up in confidence.
- ❖ We believe multi-billion-dollar deals are unlikely to make a comeback in the short term, and pharma companies would continue to explore inexpensive yet high potential assets (therapeutic drugs and vaccines in specialized areas).

## M/M US Pharma M&A Deal Flow (Q2 & Q3 2020)

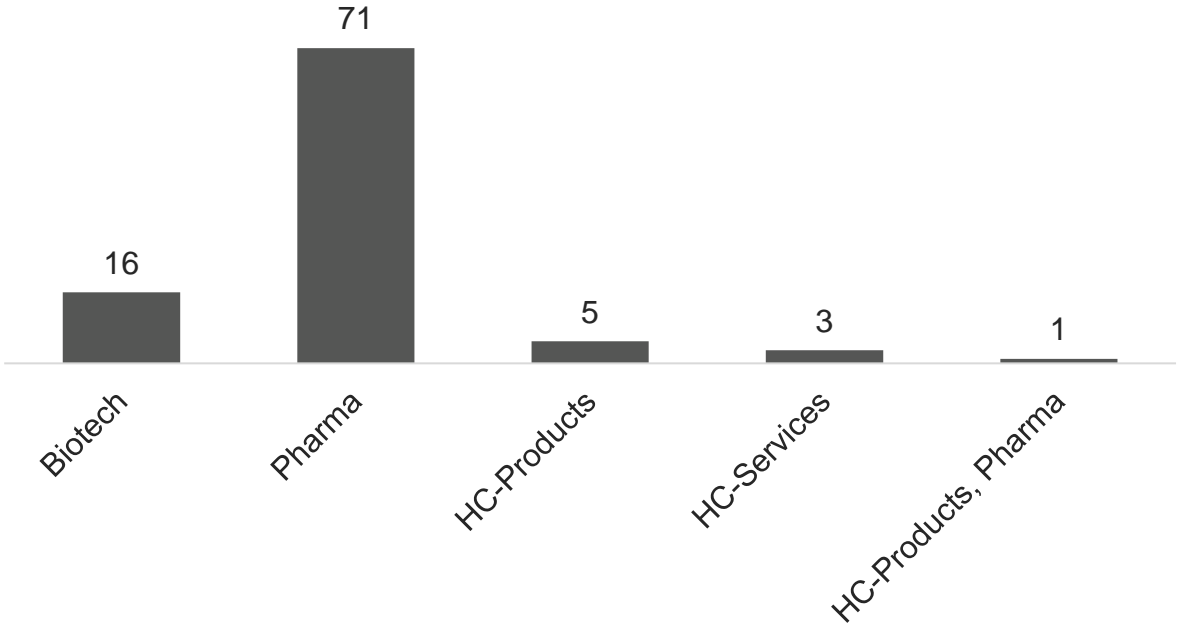


Source: Aranca Research

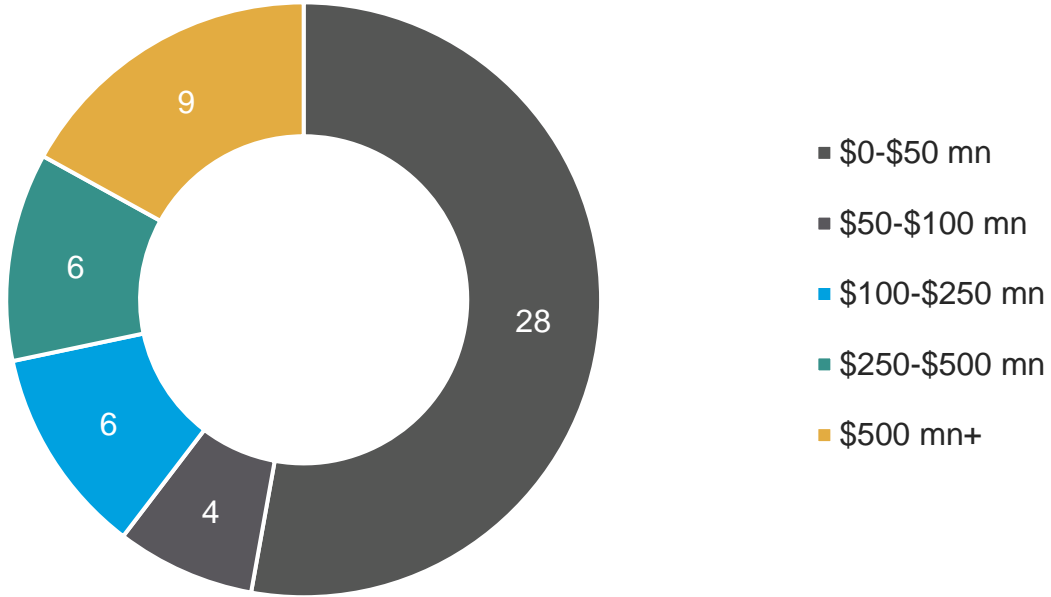
# Big-bang deals likely to remain few and far between

- ❖ Within the US pharma M&As, majority of the deals revolved around either generic or specialized drugs or companies in the process of evaluating new drugs and vaccines. Some of the largest deals closed this year focused on companies catering to treatment of lifestyle diseases, cancer, and auto-immune diseases, along with those developing drug discovery or biosimilar platforms.
- ❖ Smaller deals of under USD250 mn, which have dominated the M&A market so far in 2020, were closed for a mix of specialized drugs, clinical diagnostics, sequencing technologies, and drug discovery technologies.

### The US Pharma M&A Deals By Business Type



### The US Pharma M&A Deals By Size

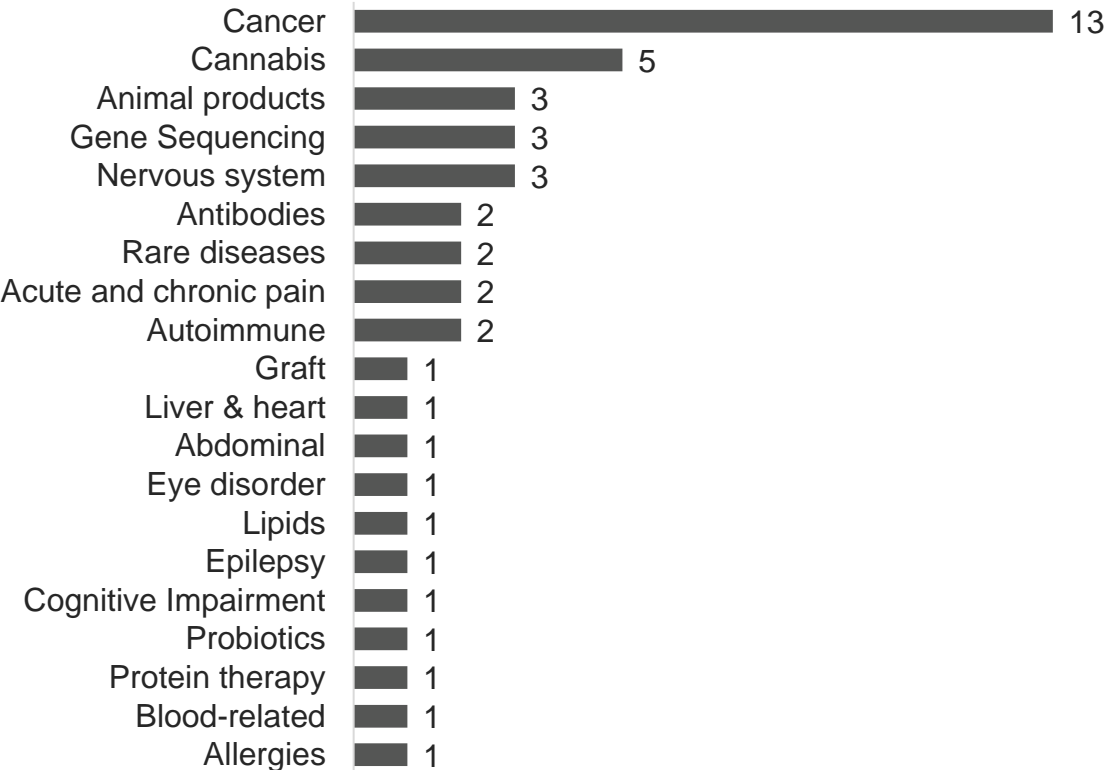


Source: Aranca Research

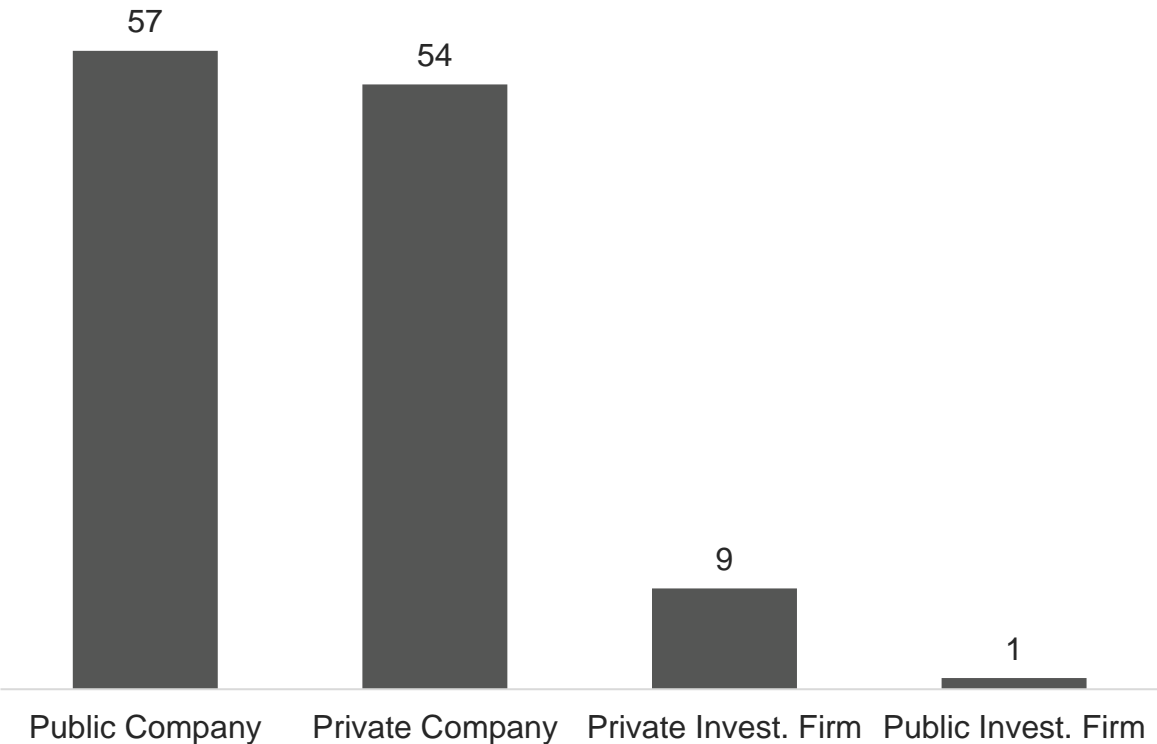
# Oncology dominated Q2/Q3 M&A landscape; cannabis follows an interesting second

- ❖ Bulk of the acquisitions during Q2 and Q3 2020 were strategic, with companies looking to acquire specialized assets or targets catered to niche markets. Handful of transactions were conducted by private investment firms, despite sitting on significant dry powder.
- ❖ As mentioned previously, cancer and its multiple variants dominated the US M&A landscape. On the other hand, market for cannabis, CBD, and hemp remained attractive for M&A, PE investments, or deals with special-purpose acquisition companies.

The US Pharma M&A Deals By Primary Target Disease Area



The US Pharma M&A By Buyer Type

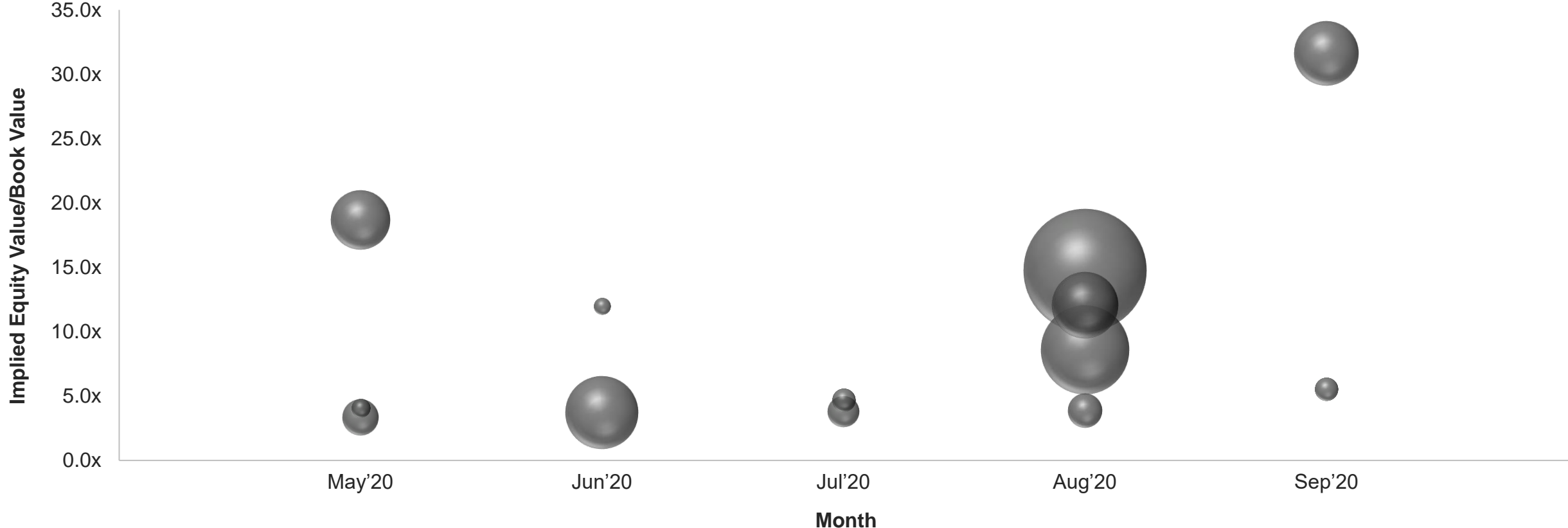


Source: Aranca Research

# Recent deal multiples indicate early signs of increasing risk-appetite...

- ❖ Q2 2020 was primarily characterized by small-ticket deals that closed for much lower multiples (based on the information available).
- ❖ As the year progressed, average deal size increased significantly, albeit being pushed up by a few mega deals. Additionally, deal multiples inched up toward the end of Q3 2020.

Deal Multiples By Month (Q2 and Q3 2020)

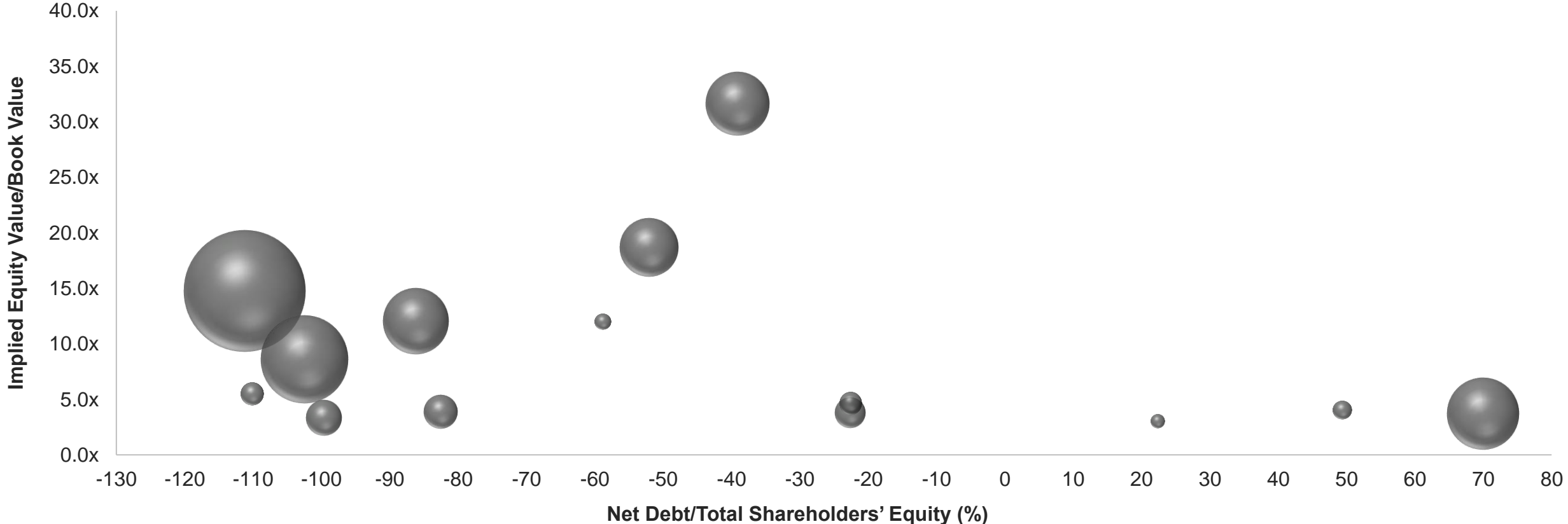


Source: Aranca Research

# ...yet targets with low debt being preferred over those with more leverage

- ❖ While deal multiples may be inching up, they have depended on individual targets, end markets, and growth potential.
- ❖ Most buyers have focused on companies with lower leverage and net-negative debt, based on the available target company information.

Deal Multiples By Month (Q2 and Q3 2020)

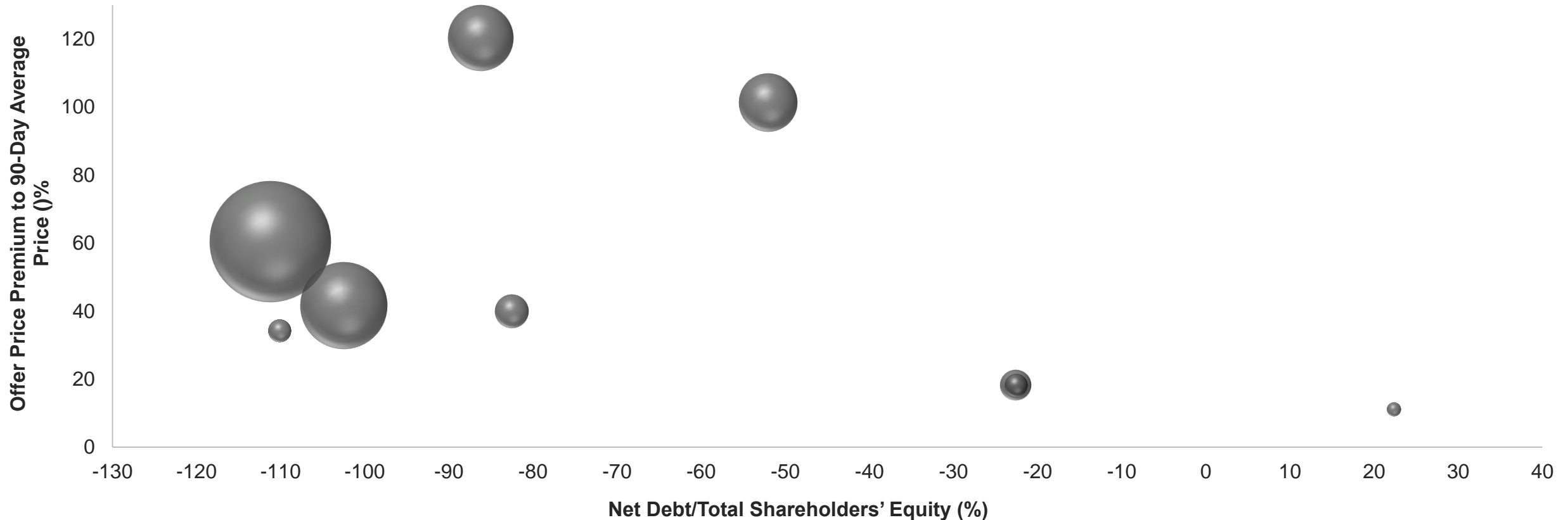


Source: Aranca Research

# Even for some of the publicly listed targets, we see high premium for the less levered ones

- ❖ Continuing with our earlier point, deals involving publicly listed companies suggest that targets with high net cash positions have gone for a meaningful premium to their 90-day average trading price.

## Deals Compared With Target Net Debt & Offer Price v/s 90-Day Average Daily Price

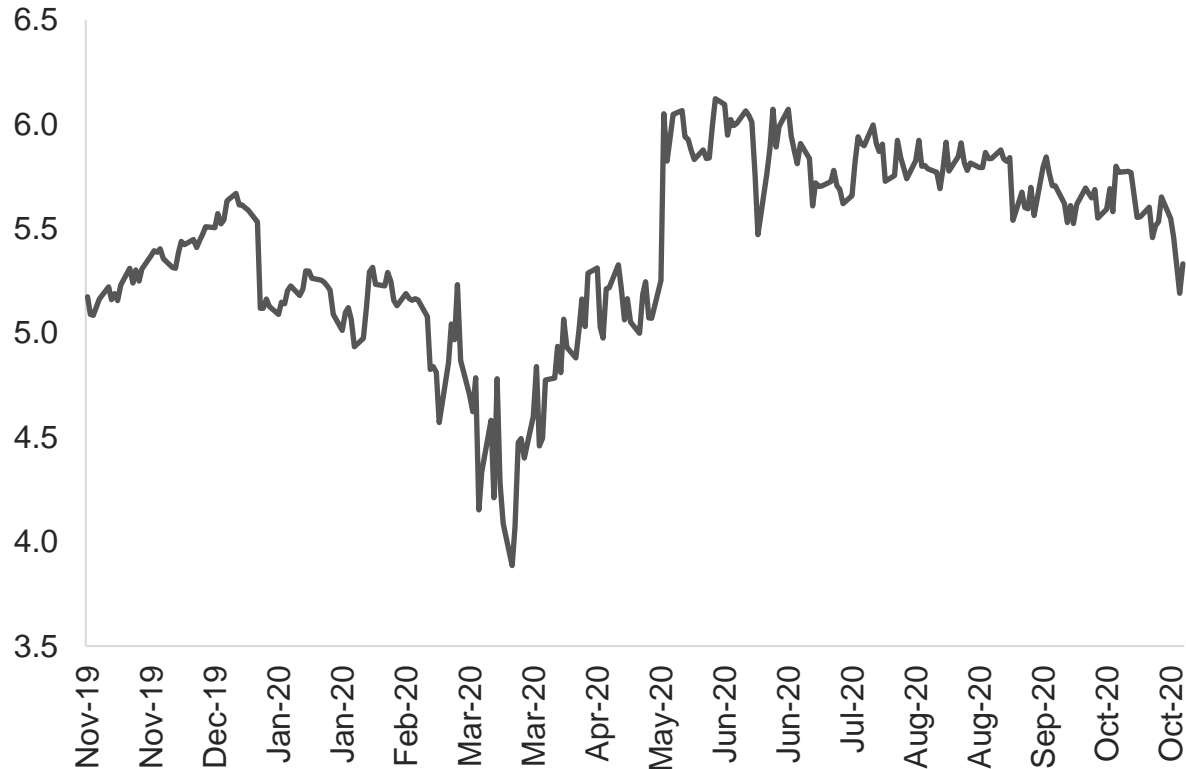


Source: Aranca Research

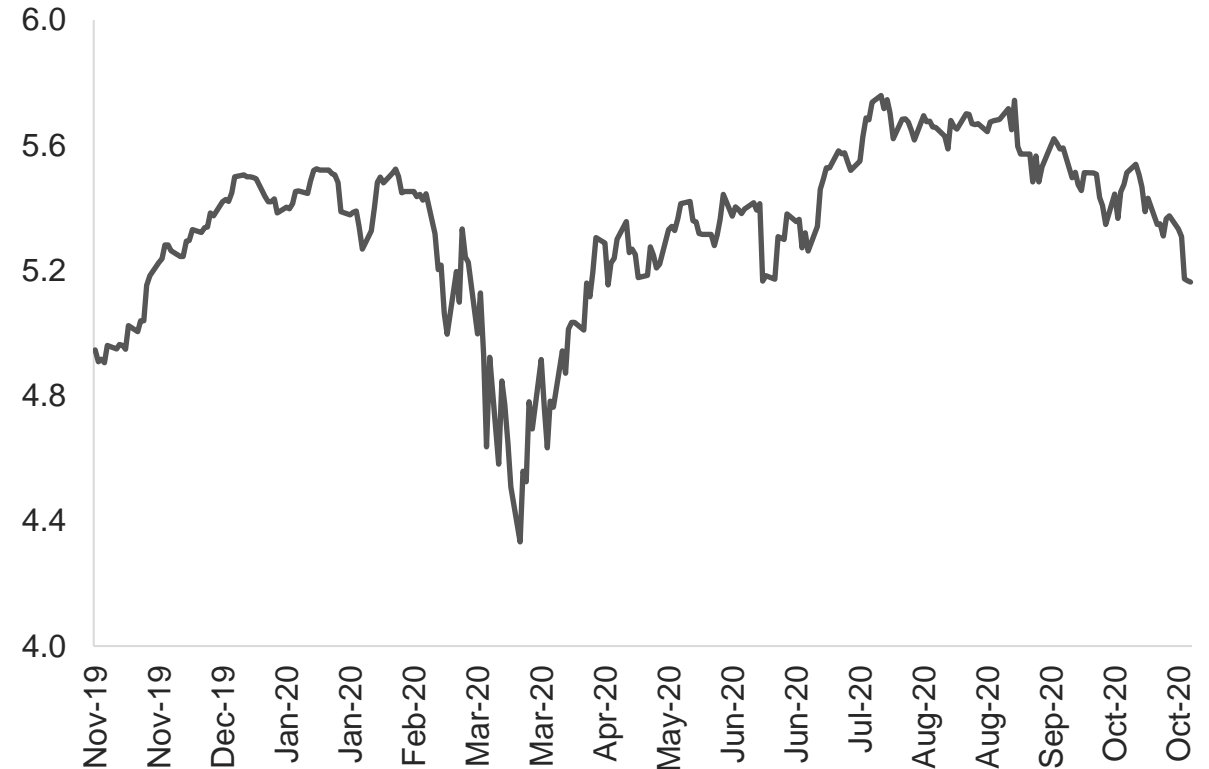
# Valuations for the US pharma and biotech industry currently close to their 52-week highs

- ❖ Despite the looming economic impact of the COVID-19 outbreak, fiscal and monetary stimuli extended by global central banks resulted in a near total recovery of stock markets.
- ❖ Although the US pharma sector, along with the broader healthcare space, underperformed during this rally, valuations are now close to their 52-week highs.

## MSCI US Pharma & Biotech Index - Price/Book



## MSCI US Pharma & Biotech Index - EV/EBITDA



Source: Aranca Research



# US Pharma & Biotech Large Cap Trading Companies

- ❖ Trading comps of some of the largest pharma and biotech companies are listed below. Many of these companies are currently in the green from a YTD total returns perspective.

Company Name	Ticker	M Cap (USD mn)	P / E (LTM, x)	YTD Total Return (%)	EV / T12m Sales (x)	EV / T12m EBITDA (x)
Johnson & Johnson	JNJ US	360,950	20.5	-4	4.1	11.7
Pfizer Inc	PFE US	197,160	14.9	-7	4.8	11.0
Merck & Co. Inc.	MRK US	190,220	13.3	-15	4.1	9.7
Abbvie Inc	ABBV US	150,190	11.2	1	4.3	8.5
Bristol-Myers Squibb Co.	BMJ US	131,740	24.6	-6	3.4	6.2
Amgen Inc	AMGN US	126,300	17.3	-8	5.6	10.0
Eli Lilly & Co.	LLY US	124,800	19.7	1	5.3	14.4
Zoetis Inc	ZTS US	75,330	43.5	20	11.5	26.8
Gilead Sciences Inc.	GILD US	72,860	11.0	-8	3.2	5.9
Regeneron Pharmaceuticals	REGN US	57,830	22.0	45	5.6	11.2
Vertex Pharmaceuticals Inc.	VRTX US	54,180	25.6	-5	7.0	12.1
Biogen Inc.	BIIB US	38,790	8.0	-15	3.7	7.4
Seagen Inc.	SGEN US	30,080	65.7	46	15.7	628.4
Moderna Inc.	MRNA US	26,700	na	245	8.1	39.7
Alexion Pharmaceuticals Inc.	ALXN US	25,200	10.9	6	3.9	7.2
Royalty Pharma Plc	RPRX US	22,280	na	na	15.8	17.8
Incyte Corp.	INCY US	18,950	na	-1	6.2	21.9
Horizon Therapeutics Plc	HZNP US	16,510	233.9	107	6.3	14.4
Elanco Animal Health Inc	ELAN US	14,630	102.8	5	3.4	15.0
Alnylam Pharmaceuticals Inc	ALNY US	14,260	na	7	15.7	na
Livongo Health Inc	LVGO US	14,200	na	458	24.7	244.8
Biomarin Pharmaceutical Inc	BMRN US	13,500	151.1	-12	6.7	64.2
Myokardia Inc	MYOK US	11,920	na	207	401.1	na
Sarepta Therapeutics Inc	SRPT US	10,670	na	5	12.1	Na
Guardant Health Inc	GH US	10,630	na	37	25.4	na
Mirati Therapeutics inc	MRTX US	10,520	Na	69	286.9	na
<b>Median</b>		<b>28,930</b>	<b>20.5</b>	<b>5.3</b>	<b>6.2</b>	<b>12.1</b>

Source: Aranca Research

## Details of Major Pharmaceutical M&A Deals (1/4)

### Immunomedics

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**Acquirer** – Gilead Sciences, Inc.

**Deal Value** – ~USD18 bn

**Target Business** – Antibody-drug conjugate innovation in cancer

**Rationale** – Addition of Immunomedics flagship product Trodelvy to Gilead's oncology portfolio. Trodelvy is predominantly used to cure triple-negative breast cancer, with Gilead likely to explore its potential in other forms of cancer as monotherapy or as a combination with other treatments.

**Status** – Completed



**Acquirer** – Johnson & Johnson

**Deal Value** – ~USD5.5 bn

**Target Business** – Therapeutics for immune-mediated diseases

**Rationale** – Acquired by Janssen Pharmaceutical Companies of J&J, Momenta will advance J&J's efforts towards advance patient care in autoantibody-driven diseases. J&J is looking to utilize Momenta's progress in developing medicines for rare diseases such as maternal-fetal disorders, neuroimmune disorders, rheumatology, dermatology and autoimmune hematology.

**Status** – Completed

## Details of Major Pharmaceutical M&A Deals (2/4)

**PRINCIPIA**  
B I O P H A R M A

**Acquirer** – Sanofi

**Deal Value** – ~USD3.0 bn

**Target Business** – Therapeutics for immune-mediated diseases

**Rationale** – The acquisition strengthens Sanofi’s R&D efforts towards autoimmune and allergic diseases. Gives Sanofi control over Principia’s Bruton tyrosine kinase (BTK) inhibitors in multiple sclerosis and will also allow Sanofi the ability to expand it to other central nervous system diseases and therapeutic areas

**Status** – Completed

**aimmune™**  
THERAPEUTICS

**Acquirer** – Nestle

**Deal Value** – ~USD1.3 bn

**Target Business** – Curative therapies/ solutions for food allergies

**Rationale** – Aimmune will add to Nestle’s efforts to build innovative, nutrition-based solutions for a healthy life. One key product that Nestle expects to be of significant value is Aimmune’s Palforzia, used in the treatment of peanut allergy.

**Status** – Completed

## Details of Major Pharmaceutical M&A Deals (3/4)



**Acquirer** – Alexion Pharmaceuticals, Inc.

**Deal Value** – ~USD1.6 bn

**Target Business** – Products for reversal of coagulation effects in severe and uncontrolled bleeding

**Rationale** – Portola's products are not entirely in sync with Alexion's own rare-diseases portfolio; however the acquirer believes it can augment the reach and adoption of Portola's Andexxa inhibitor leveraging its existing presence in critical **care**.

**Status** – Completed



**Acquirer** – Invitae Corporation

**Deal Value** – ~USD1.2 bn

**Target Business** – Gene testing company; product Statafide used in identification of genomic alteration in multiple types of cancer

**Rationale** – Invitae is also a genetic testing company and hopes to expand its footprint in genetics testing for cancer and the broader oncology space. The potential expansion in footprint can include individuals, community clinicians, biopharmaceutical partners, reference labs, etc.

**Status** – Completed

## Details of Major Pharmaceutical M&A Deals (4/4)



CerSci

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**Acquirer** – ACADIA Pharmaceuticals Inc.

**Deal Value** – Up to ~USD800 mn depending on development, commercialization, and sales milestones

**Target Business** – Non-opioid therapies for acute and chronic pain

**Rationale** – Acadia's focused on innovative medicines related to the central nervous system disorders and the acquisition adds to its clinical pipeline to include non-opioid pain therapies

**Status** – Completed



Stemline

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**Acquirer** – BerlinChemie AG

**Deal Value** – ~USD600 mn

**Target Business** – Oncology therapeutics. Elzonris is the only FDA approved therapy for blastic NK-cell lymphoma in the US

**Rationale** – The acquisition establishes BerlinChemie's, a subsidiary of Italian firm Menarini, presence in the US oncology market. The acquirer will look to add to Elzonris' development and expand its global reach by leveraging its network and infrastructure in Europe and other regions outside of the US.

**Status** – Completed

## Appendix – Major Deals Closed During Q2 & Q3 2020 (1/4)

Target Company Name	Buyers/Investors	Deal Value (USD mn)	Implied EV / Revenues (x)	Implied Equity Value / BV (x)	Target Net Debt / Assets (%)
Immunomedics, Inc.	Gilead Sciences, Inc.	17,649	na	34	-90
Momenta Pharmaceuticals, Inc.	Johnson & Johnson	5,351	197	16	-76
Principia Biopharma Inc.	Sanofi	3,114	68	9	-78
Aimmune Therapeutics, Inc.	Société des Produits Nestlé S.A.	1,760	na	13	-47
Portola Pharmaceuticals, Inc.	Alexion Pharmaceuticals, Inc.	1,634	12	20	-1
ArcherDx, Inc.	Invitae Corporation	1,236	25	na	-3
CerSci Therapeutics Inc.	ACADIA Pharmaceuticals Inc.	792	na	na	na
Stemline Therapeutics, Inc.	BerlinChemie AG	622	11	4	-89
Censa Pharmaceuticals Inc.	PTC Therapeutics, Inc.	503	na	na	na
Pfenex Inc.	Ligand Pharmaceuticals Incorporated	481	12	6	-67
UAS Laboratories, Inc.	Chr. Hansen Holding A/S	466	na	na	na
Tetra Therapeutics Inc.	Shionogi & Co., Ltd.	455	na	na	na
Akcea Therapeutics, Inc.	Ionis Pharmaceuticals, Inc.	448	5	4	-71
COPIKTRA	Secura Bio, Inc.	264	na	na	na

Source: Aranca Research

## Appendix – Major Deals Closed During Q2 & Q3 2020 (2/4)

Target Company Name	Buyers/Investors	Deal Value (USD mn)	Implied EV / Revenues (x)	Implied Equity Value / BV (x)	Target Net Debt / Assets (%)
Tizona Therapeutics, Inc.	Gilead Sciences, Inc.	261	na	na	na
Pionyr Immunotherapeutics Inc.	Gilead Sciences, Inc.	243	na	na	na
Engage Therapeutics, Inc.	UCB SA	239	na	na	na
Avanti Polar Lipids, Inc.	Croda International Plc	230	na	na	na
Stratos Genomics, Inc.	Roche Holding AG	230	na	na	na
Telotristat ethyl	TerSera Therapeutics LLC	191	na	na	na
Eyevance Pharmaceuticals LLC	Santen Holdings U.S. Inc.	190	na	na	na
AlvaAmco Pharmacal Companies, Inc.	Kobayashi Pharmaceutical Co., Ltd.	92	3	na	na
GenCanna Global USA, Inc.	MGG Investment Group, LP	70	na	na	na
Anelixis Therapeutics, LLC	Novus Therapeutics, Inc.	63	na	na	na
Platinum Vape, LLC	Red White & Bloom Brands Inc.	52	1	na	na
Tetraphase Pharmaceuticals, Inc.	La Jolla Pharmaceutical Company	49	4	1	-63
Noden Pharma DAC/Noden Pharma USA, Inc.	Stanley Capital	45	na	na	na
Sera Labs, Inc.	CURE Pharmaceutical Holding Corp.	38	na	na	na

Source: Aranca Research

## Appendix – Major Deals Closed During Q2 & Q3 2020 (3/4)

Target Company Name	Buyers/Investors	Deal Value (USD mn)	Implied EV / Revenues (x)	Implied Equity Value / BV (x)	Target Net Debt / Assets (%)
Sterile Injectable Drug Portfolio	Exela Pharma Sciences LLC	37	na	na	na
Pennsylvania Medical Solutions, LLC	Jushi Inc	33	na	na	na
Cellero, LLC	Charles River Laboratories International, Inc.	32	na	na	na
Berkshire Sterile Manufacturing, Inc.	Sharp Corporation	32	na	na	na
89bio, Inc. (NasdaqGM:ETNB)	RA Capital Management, L.P.	31	na	8	na
Diligent Health Solutions, LLC	Uniphar plc	23	na	na	na
Adgero Biopharmaceuticals Holdings, Inc.	Kintara Therapeutics, Inc.	19	na	17	-87
SmartPharm Therapeutics, Inc.	Sorrento Therapeutics, Inc.	17	na	na	na
Assets of Tamir Biotechnology, Inc.	Orgenesis Inc.	17	na	na	na
Oral Drug Product Mftg Facility in Pennsylvania	Piramal Enterprises Limited	16	na	na	na
Business Operations of Stratford Pharmaceuticals	Stratford Care USA Inc.	15	2	na	na
Koligo Therapeutics, Inc.	Orgenesis Inc.	11	na	na	na
Assets of TechHoldings	Vertical Wellness, Inc.	9	na	na	na
Verdure, Inc	Curaleaf Holdings, Inc.	8	na	na	na

Source: Aranca Research



## Appendix – Major Deals Closed During Q2 & Q3 2020 (4/4)

Target Company Name	Buyers/Investors	Deal Value (USD mn)	Implied EV / Revenues (x)	Implied Equity Value / BV (x)	Target Net Debt / Assets (%)
Lineagen, Inc.	Bionano Genomics, Inc.	8	2	na	na
Opticann Inc.	Heritage Cannabis Holdings Corp.	8	na	na	na
MeiraGTx Bio Inc.	MeiraGTx Holdings plc	7	na	na	na
Noachis Terra Inc.	Oragenics, Inc.	6	na	na	na
Flaskworks, LLC	Northwest Biotherapeutics, Inc.	4	na	na	na
Ultimate Brain Nutrients, LLC	Grey Cloak Tech Inc.	3	na	na	na
Pharmadelic Labs Corp.	EGF Theramed Health Corp.	3	na	na	na
Kruzo LLC	Nutritional High International Inc.	2	na	na	na
Migraine/ Pain Treatment assets of Trigemina, Inc.	Tonix Pharmaceuticals, Inc.	2	na	na	na
Natural Plant Extract of California, Inc.	Cannabis Global, Inc.	2	na	na	na
Magical Beasts, LLC	Jupiter Wellness, Inc.	1	12	20	na

Source: Aranca Research



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