

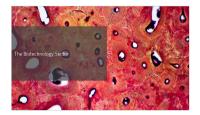


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PHARMA TRENDS OVERVIEW



BIOTECHNOLOGY SECTOR



TOP PLAYERS IN BRANDED PHARMA



GENERICS DRUGS & BIOSIMILARS



TOP PLAYERS IN ANIMAL HEALTH



PRIVATE EQUITY & ROYALTIES



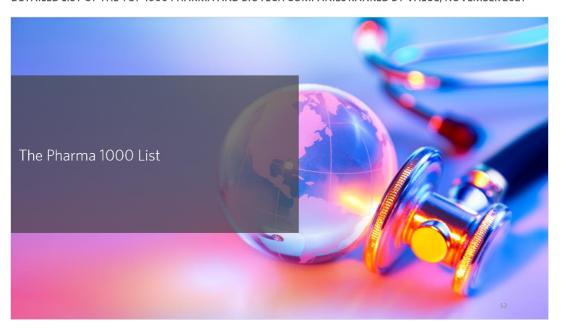
WHO'S WHO BY COUNTRY & FIELD



ABOUT TORREYA



DETAILED LIST OF THE TOP 1000 PHARMA AND BIOTECH COMPANIES RANKED BY VALUE, NOVEMBER 2021



Torreya's Pharma 1000 Report

- Torreya is a globally active investment bank focused on the pharmaceutical sector.
- We began to track assets, people, and companies in the industry with our own database in 2012.
- We first published a Pharma 1000 report in 2020, listing the top 1000 companies in the industry by value.
- This presentation updates the 2020 report, providing an up-to-date accounting of the industry using valuations that were current as of Nov 5, 2021.
- This year we have chosen to provide a summary of key findings in this presentation and have omitted company-by-company detail as was published in September 2020.
- This presentation provides a summary of the key findings of the report.
- We hope to give you a sense of the global scale of the pharmaceutical industry and its recent extraordinary evolution.
- In total, we valued and ranked 2,094 companies for this year's study. The bar rose this year on what it took to be in the top 1000 list. The 1000th company this year had a value of \$406 million. Last year, the value of the 1000th company was \$335 million.
- We also wish to recognize the companies that appear on the Pharma 1000 list for the accomplishment of becoming a top company in one of the world's most important and challenging industries.

Torreya Pharma 1000 Study Approach

- We identified approximately 30,000 pharmaceutical companies in 2012. Our team studied these companies and pulled out the active operating companies in ethical pharmaceuticals which had a tangible basis for valuation. We have tracked this group and added to it ever since.
- To be included in the dataset, a company had to be primarily focused on the production and marketing of ethical pharmaceutical products or be directly involved in the marketing of such products, to derive revenue from such marketing activities or to be doing research with the intention of developing marketed pharmaceutical products. We excluded OTC companies, pharmaceutical distributors, pure play manufacturers, and API players from the ranking.
- Because over half the companies are not listed on a stock market, we developed an approach to impute value for private companies (based on financial metrics where available). Our approach is to use median publicly-traded comparable company multiples as of Nov 5, 2021 to impute private company value. The revenue multipliers for branded pharma, generics, biosimilars, Japan pharma and royalty companies are 5.28x, 2.68x, 9.21x, 1.85x and 12.6x respectively. If a private company had an EBITDA margin over 20% we used a median EBITDA multiple instead. Further details are provided on pages 7 to 11 of <u>last year's report</u>.
- We value publicly-traded companies using their enterprise value as this reflects the capital market's valuation of core operations. This is computed using the market close price of a company's common shares on November 5, 2021, multiplied by the number of common shares outstanding as of the last reported financing period. We then subtracted cash and liquid securities and added back debt to arrive at enterprise value.

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Acknowledgements and Suggestions

November 2021

We wish to thank the many companies who reviewed their information and provided corrections and updates for this report. We also wish to thank the companies who wrote in to let us know that they were not included in last year's report and should have been. We invite those that are still omitted or have suggestions to contact Allison Bobzin (allison.bobzin@torreya.com) so that we can update with the best data available.

The idea of publishing a value ranking for the pharma sector has been many years in the making and could not have been possible without the support of many people including Margaux Babich, Allison Bobzin, John Bradley, Brandon Chang, Elizabeth Condo, Masaki Doi, Weijun Gu, Kylor Hua, Hansruedi Kottmann, Hayley Kunzli, Nitin Lath, Brendan Latimer, Andrew Ledger, Megan Ledger, Allen Lefkowitz, Stephanie Leouzon, Jeremy Lin, Jie Liu, Jocelyn Lyu, Avi Margulies, Olivia Morales, Nandhini Ravi, Mark Simon, Zanna Stephan, Mara Walton, Sam Wilding, Sonata Winchester, Hank Wu and Teresa You. The efforts of each of these persons is gratefully acknowledged. The images in this presentation are from Pixabay and Getty Images or are otherwise owned by Torreya.

Thank you

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Sector SizeIndustry is quite large

Torreya's
Estimate of Total
Global Revenues
of the Ethical
Pharmaceutical
Sector in 2021:

\$1.44

Trillion
(up 16.1% from 2020)

Torreya's Estimate of Industry Size:

\$1.41 Trillion in revenue across the industry worldwide (\$178 per living person).

This estimate is the sum of net sales of the largest 2,300 companies in the pharmaceutical sector.

Our aggregate revenue estimate is substantially higher than what has been derived by EvaluatePharma and somewhat higher than IQVIA's estimate.*

The value of the ethical side of the drug sector is approximately \$7 trillion. Of this, \$6.1 trillion is associated with publicly-traded companies and the rest associated with private companies.

Putting it in Perspective:

The pharmaceutical sector is a large and complex growing part of the global economy. If its revenue were compared with the GDP of top countries, it would be the world's thirteenth largest country.

Torreya's Estimate of Total Global Value of the Ethical Pharmaceutical Sector in November 2021: \$7.03

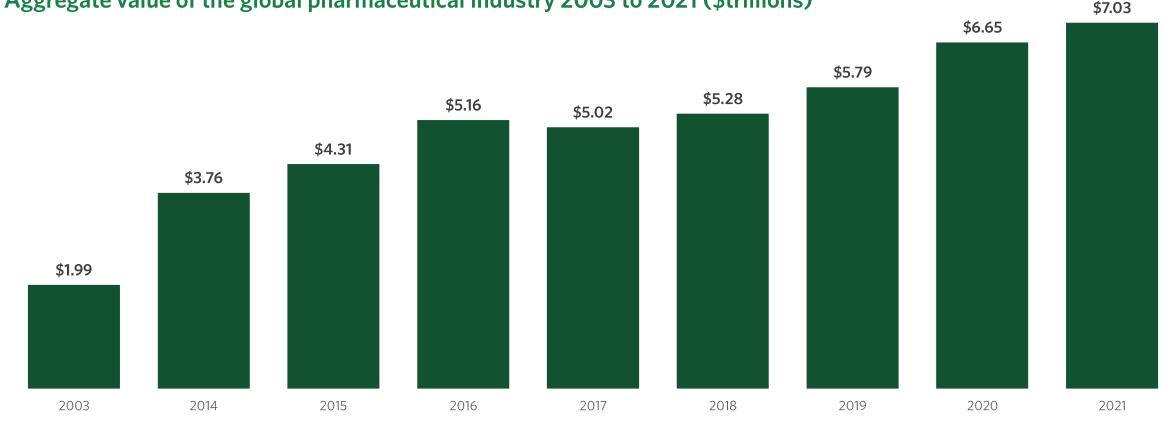
Trillion
(up 5.6% from 2020)

^{*} See EvaluatePharma®, World Preview 2021 Outlook to 2026, July 2021 and Global Medicine Usage Trends and Outlook to 2025, IQVIA Institute, March 2021.

Value of Industry Has Tripled Since 2003

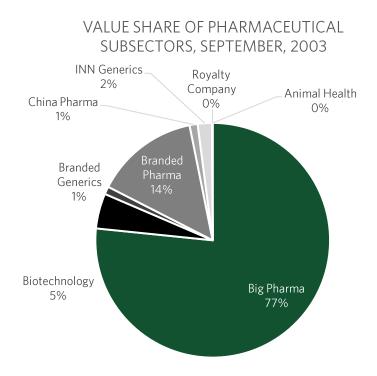
Pharma sector valuations peaked in February 2021 and have been down in recent months. Despite this, the total value of the sector has gone up by \$300 billion since September 2020. This is due, in part, to high volume of IPOs.

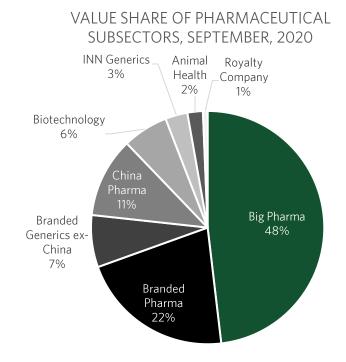
Aggregate value of the global pharmaceutical industry 2003 to 2021 (\$trillions)

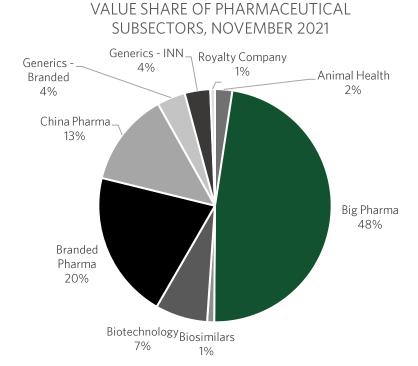


Pharmaceutical Value by Subsector, 2003 vs. 2021

The pharmaceutical sector saw big pharma keep its value share, the biotech and China sectors grow. The branded pharma sector shrunk slightly, and the branded generics sector lost almost half of its value share. The drop in branded generics value share reflects ongoing industry commoditization and turbulence in pricing in Europe, Latin America, Africa and parts of Asia.







Source: Torreya analysis, November 5, 2021. "Big pharma" is classified as the 18 largest companies in the sector by value. The biotech sector seems smaller than some might have expected. This is because we classify a company with no approved product as a "biotechnology company" and a company with a marketed product that is not a big pharma, not a Japan pharma nor a China branded generic pharma as a branded pharma company. Thus, many companies (think Incyte or Biogen) that some would think of asbiotech are classified by us as branded pharma.



Evolution of Pharmaceutical Value by Modality, 2003 to 2021

Companies focused on **small molecules** have gone from 84.6% market share to 58.2% market share today (most of the generic sector is focused on small molecules). The big growth areas have been nucleic acids and vaccines. New areas like gene therapy, cell therapy, and gene editing have grown very fast but are still small in the total bioeconomy.

Subsector	Count - 2021	Total Value (\$ Millions, 2021)	Value Share 2021	Total Value (\$ Millions, 2020)	Value Share 2020	Total Value (\$ Millions, 2015)	Value Share 2015	Total Value (\$ Millions, 2003)	Value Share 2003
Small Molecules	1244	4,068,076	58.2%	3,435,848	59.9%	3,596,648	75.4%	1,679,820	84.6%
Biologics	207	2,134,579	30.5%	2,021,820	33.6%	945,130	19.8%	287,135	14.5%
Nucleic Acids	28	195,188	2.8%	81,734	1.4%	16,918	0.4%	630	0.0%
Blood Products	14	176,840	2.5%	189,622	3.2%	82,655	1.7%	2,834	0.1%
Vaccines	48	161,991	2.3%	101,876	1.7%	18,946	0.4%	3,841	0.2%
Naturals	52	115,641	1.7%	108,437	1.8%	75,101	1.6%	11,091	0.6%
Cell Therapy	76	64,122	0.9%	35,248	0.6%	12,030	0.3%	306	0.0%
Gene Therapy	35	29,313	0.4%	21,397	0.4%	8,060	0.2%	266	0.0%
Gene Editing	8	20,428	0.3%	6,823	0.1%	4,956	0.1%	0	0.0%
Radiopharmaceuticals	8	18,185	0.3%	7,692	0.1%	9,911	0.2%	0	0.0%
Peptides	7	8,171	0.1%	7,778	0.1%	1,728	0.0%	0	0.0%

Source: Torreya analysis, Nov 5, 2021.

Evolution of Pharmaceutical Value by Country, 2015 to 2021

The top five countries for the pharma sector globally are the U.S., China, Switzerland, the UK, and Germany. China lost value share last year due to heavy price cuts impacting its generic sector. The U.S., Germany, Denmark, and UK gained value share. The U.S. experience was driven by Lilly (up \$102 billion), Moderna (up \$64 billion), AbbVie/Zoetis/Pfizer/Gilead/Viatris (up \$136bn together). IPO's (particularly Organon) in the U.S. were associated with \$60 billion in additional new value. IPO's of Chinese biotechs and pharmas were associated with an extraordinary \$93 billion in incremental value. Much of the uptick in the UK can be explained by excellent performance at AstraZeneca (up \$46 billion). Denmark did extraordinarily well percentagewise. A whopping \$102 billion value increment took place in Novo Nordisk shares. Novo went from being ranked #10 to being ranked #4 in the world in a single year. Much of Japan's loss in value is explained by weak share price performance at Takeda.

Country	Count - 2021	Total Value (\$ Millions, 2021)	Value Share 2021	Total Value (\$ Millions, 2020)	Value Share 2020	Total Value (\$ Millions, 2015)	Value Share 2015
United States	525	\$2,793,782	40.0%	2,326,168	38.7%	2,035,572	42.2%
China	280	\$840,261	12.0%	864,268	14.4%	315,091	6.5%
Switzerland	27	\$539,394	7.7%	498,775	8.3%	555,752	11.5%
United Kingdom	49	\$436,457	6.2%	328,454	5.5%	245,438	5.1%
Germany	37	\$413,935	5.9%	322,319	5.4%	298,656	6.2%
Japan	81	\$375,314	5.4%	428,114	7.1%	230,513	4.8%
Denmark	12	\$318,315	4.6%	199,572	3.3%	159,922	3.3%
France	48	\$231,742	3.3%	176,534	2.9%	203,763	4.2%
India	68	\$165,832	2.4%	120,071	2.0%	126,807	2.6%
South Korea	104	\$117,615	1.7%	115,098	1.9%	43,902	0.9%
Australia	12	\$117,428	1.7%	99,960	1.7%	32,559	0.7%

Source: Torreya analysis, November 5, 2021.

Pharmaceutical Industry Value by Region, 2020 and 2021

Over the last year, the New York, Basel and Tokyo regions ceded value share to Copenhagen (outstanding performance of Novo Nordisk), Boston (outstanding performance of Moderna), Indiana (outstanding performance of Lilly) and Cambridge / Oxford (outstanding performance of AstraZeneca).

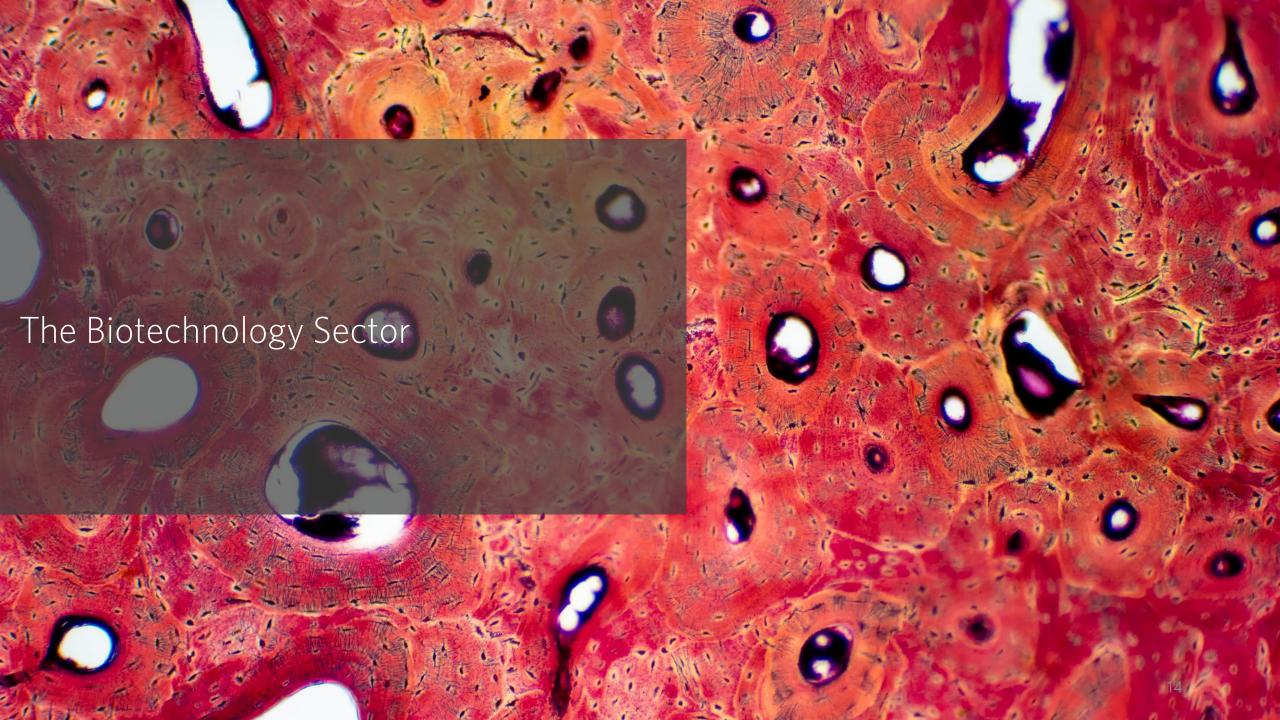
The pharmaceutical industry continues to be remarkably concentrated by region.

The top four regions for the industry today account for 29% of the total value of the sector.

The top eight regions for the industry today account for 51% of the total value in the sector.

Rank 2021	Rank 2020	Region	Count – 2021	Total Value (\$ Millions, 2021)	Value Share 2021	Total Value (\$ Millions, 2020)	Value Share 2020
1	1	New York Area, US	86	\$1,254,781	18.0%	\$1,247,732	19.0%
2	2	Basel, Switzerland	5	\$460,600	6.6%	\$542,549	8.2%
3	7	Copenhagen, Denmark	11	\$317,835	4.6%	\$214,763	3.3%
4	6	Boston Area, US	112	\$310,043	4.4%	\$236,422	3.6%
5	4	Rhine Area, Germany	8	\$303,989	4.4%	\$323,452	4.9%
6	5	Chicago Area	12	\$301,229	4.3%	\$285,953	4.3%
7	3	Tokyo, Japan	47	\$300,960	4.3%	\$361,124	5.5%
8	14	Indiana, US	3	\$273,874	3.9%	\$164,308	2.5%
9	8	Bay Area, US	88	\$241,191	3.5%	\$204,781	3.1%
10	12	Cambridge and Oxford, UK	6	\$216,000	3.1%	\$168,273	2.6%
11	9	Paris, France	23	\$211,172	3.0%	\$200,382	3.0%
12	13	London, United Kingdom	29	\$202,022	2.9%	\$165,534	2.5%
13	10	Jiangsu Province, China	35	\$167,404	2.4%	\$194,488	3.0%
14	11	Los Angeles, US	18	\$159,765	2.3%	\$175,284	2.7%
15	16	Melbourne, Australia	4	\$111,767	1.6%	\$103,813	1.6%
16	15	South Korea	105	\$97,743	1.4%	\$116,116	1.8%
17	22	Beijing, China	21	\$92,526	1.3%	\$59,369	0.9%
18	20	Mumbai, India	28	\$80,075	1.1%	\$64,827	1.0%
19	17	Sichuan Province, China	15	\$69,280	1.0%	\$75,678	1.1%
20	23	Shandong Province, China	16	\$65,619	0.9%	\$41,231	0.6%
21	NA	Hebei Province, China	7	\$65,190	0.9%	NA	NA
22	21	San Diego, US	42	\$63,945	0.9%	\$60,990	0.9%
23	19	Osaka, Japan	15	\$61,991	0.9%	\$67,751	1.0%
24	18	Guangdong Province, China	25	\$61,639	0.9%	\$72,049	1.1%
25	NA	Shanghai, China	26	\$59,117	0.8%	NA	NA

Source: Torreya analysis, November 5, 2021.



Top Nine Regions for Biotech:

Boston and Bay Areas Still Supreme But Losing Value Share

There has been significant change in the geographic structure of biotech in just a year. Despite losing Moderna (to the branded pharma sector), Boston took over the #1 spot in biotech from the Bay Area. Denmark jumped a notch to #4. And, most notably, Jiangsu Province lept three ranks to the #6 spot. Germany has lost its ranking in the top nine, mainly because BioNTech and MorphoSys became commercial-stage companies. Remarkably, the real story is regions outside of the top nine. Last year (just 14 months ago), the top two regions had 33% value share. Today, it's 30%. Smaller regions are picking up value share.



#1 Boston Area:

\$88 Billion in value (2021) \$69 Billion in value (2020) \$28 Billion in value (2015) 15.9% of sector value



#2 Bay Area:

\$82 Billion in value (2021) \$70 Billion in value (2020) \$18 Billion in value (2015) 14.8% of biotech sector value



#3 San Diego:

\$38 Billion in value (2021) \$37 Billion in value (2020) \$9 Billion in value (2015) 6.9% of biotech sector value



#4 Denmark:

\$37.95 Billion in value (2021) \$30 Billion in value (2020) \$8 Billion in value (2015) 6.8% of biotech sector value



#5 New York Area:

\$36 Billion in value (2021) \$32 Billion in value (2020) \$10 Billion in value (2015) 6.6% of biotech sector value



#6 Jiangsu Province, China

\$22.6 Billion in value (2021) \$11 Billion in value (2020) 4.1% of biotech sector value



#7 The Netherlands:

\$17 Billion in value (2021) \$11 Billion in value (2020) \$1 Billion in value (2015) 3.1% of biotech sector value



#8 South Korea:

\$16.5 Billion in value (2021) \$11 Billion in value (2020) \$4 Billion in value (2015) 3% of biotech sector value



#9 Washington DC Area:

\$15.8 Billion in value (2021) \$11 Billion in value (2020) \$10 Billion in value (2015) 2.8% of biotech sector value

Biotech Value by Country

The U.S. and China combined account for nearly three fourths of the value of the entire sector.

The U.S. gained value share and continues to dominate the biotech industry by value. China has now pulled decisively ahead of European countries with value share of 11.3%. Denmark remains strong with 6.9% value share. Germany lost share, mainly because BioNtech and MorphoSys both went commercial in the same year. The Netherlands is gaining share due to excellent performance by argenx. Switzerland and Japan both lost value share.

Country	Count - 2021	Total Value (\$ Millions, 2021)	Value Share 2021	Count - 2020	Total Value (\$ Millions, 2020)	Value Share 2020	Change in Share (21 to 20)
United States	455	\$326,786	58.8%	180	\$221,190	55.0%	3.8%
China	44	\$62,496	11.3%	12	\$32,810	6.7%	4.6%
Denmark	6	\$38,055	6.9%	4	\$30,387	7.6%	-0.7%
Netherlands	6	\$17,194	3.1%	4	\$10,533	2.6%	0.5%
South Korea	36	\$15,565	2.8%	16	\$11,649	2.9%	-0.1%
United Kingdom	22	\$14,858	2.7%	11	\$11,562	2.9%	-0.2%
Switzerland	12	\$11,466	2.1%	12	\$10,033	2.5%	-0.4%
Taiwan	18	\$11,451	2.1%	6	\$12,431	3.1%	-1.0%
Germany	12	\$8,773	1.6%	7	\$28,550	7.1%	-5.5%
Canada	10	\$8,628	1.6%	8	\$4,273	1.1%	0.5%
Japan	14	\$7,191	1.3%	8	\$9,986	2.5%	-1.2%
Hong Kong	2	\$7,044	1.3%	11	\$2,596	0.6%	0.7%
France	23	\$6,990	1.3%	2	\$2,446	0.6%	0.7%
Australia	10	\$6,199	1.1%	2	\$905	0.2%	0.9%
Israel	20	\$2,690	0.5%	3	\$4,095	1.0%	-0.5%
Norway	4	\$1,999	0.4%	3	\$1,533	0.4%	0.0%
India	4	\$1,867	0.3%	7	\$3,360	0.8%	-0.5%
Sweden	13	\$1,806	0.3%	1	\$494	0.1%	0.2%

Biotech Valuations by Therapeutic Area

The table at right shows the aggregate value of biotech companies by the therapeutic area associated with each company's lead compound.

Fully 39% of all value is associated with novel treatments for oncology. Rare disease and neurology companies account for another 23% of value.

The highest average value per company is associated with platforms, endocrinology, vaccines, virology and renal disease.

Valuations in hematology and wound care have plummeted.

Biotech drug development is remarkably concentrated by therapeutic area.

Therapeutic Area	Company Count 2021	Val	ue (\$mm)	Total Value - 2021	Average Value (\$mm)	Company Count 2020	Value Share - 2020	Total Value - 2020 (\$mm)	Total Value - 2015 (\$mm)	Value Growth - '20 to '21
Oncology	253	\$	216,861	39.25%	\$857	140	38.19%	\$157,146	\$51,515	32%
Neurology	62	\$	64,216	11.62%	\$1,036	31	7.38%	\$30,371	\$5,327	80%
Rare Disease	60	\$	64,183	11.62%	\$1,070	45	11.86%	\$48,782	\$22,048	27%
Vaccines	19	\$	24,796	4.49%	\$1,305	11	3.75%	\$15,419	\$3,064	35%
Virology	19	\$	22,907	4.15%	\$1,206	9	4.13%	\$17,002	\$5,340	31%
Respiratory	21	\$	21,170	3.83%	\$1,008	11	3.31%	\$13,627	\$4,983	60%
Ophthalmology	25	\$	16,839	3.05%	\$674	14	2.24%	\$9,230	\$2,894	95%
Broad / Platform	19	\$	15,604	2.82%	\$821	3	2.26%	\$9,311	\$4,956	140%
Immunology	15	\$	13,633	2.47%	\$909	9	2.20%	\$9,050	-	99%
Renal	9	\$	12,291	2.22%	\$1,366	5	1.06%	\$4,367	\$5,959	240%
Cardiometabolic	18	\$	10,420	1.89%	\$579	10	1.69%	\$6,948	\$4,765	21%
Gastroenterology	16	\$	9,419	1.70%	\$589	7	1.59%	\$6,561	\$3,717	35%
Endocrinology	2	\$	8,587	1.55%	\$4,293	2	2.91%	\$11,966	\$310	-33%
Hematology	10	\$	3,997	0.72%	\$400	7	2.12%	\$8,738	\$11,354	-57%
Bone & Osteo	5	\$	3,743	0.68%	\$749	4	2.91%	\$11,970	-	-62%
Wound Care	4	\$	3,447	0.62%	\$862	3	1.09%	\$4,487	\$1,210	-84%
Anti-Infectives	8	\$	2,067	0.37%	\$258	5	5.70%	\$23,460	\$3,594	-90%

Source: Torreya analysis, November 5, 2021.

Top 10 Biotechs by Value, November 5, 2021

Value Rank 2021	Company	HQ Location	Total Value 2021 (\$mm)	Total Value 2020 (\$mm)
1	Genmab	Denmark	\$27.8 billion	\$22,1 billion
2	argenx	Netherlands	\$13.7 billion	\$8,8 billion
3	NOVAVAX Creating Tomorrow's Vaccines Today	Washington DC Area, US	\$10.2 billion	\$5,7 billion
4	ACCELERON	Boston Area, US	\$10 billion	\$5,7 billion
5	Intelia THERAPEUTICS	Boston Area, US	\$9.5 billion	\$0.9 billion
6	ascendispharma	Denmark	\$8.5 billion	\$7,1 billion
7	of arrowhead pharmaceuticals	Los Angeles, US	\$7.9 billion	\$3,2 billion
8	bridgebio	Bay Area, US	\$7.7 billion	\$3.1 billion
9	MIRATI THERAPEUTICS	San Diego, US	\$7.3 billion	\$6.4 billion
10	cerevel	Boston, US	\$6.2 billion	\$1.3 billion

Source: CapitallQ and Torreya analysis, November 5, 2021.

20 Most Valuable Biotechs in Asia

The idea of Asia as a destination for biotechnology companies is relatively new. For biotech to be successful it needs access to human capital, financial capital and innovation. Certain Asian countries have seen an influx of human capital with expertise in advanced drug development methods.

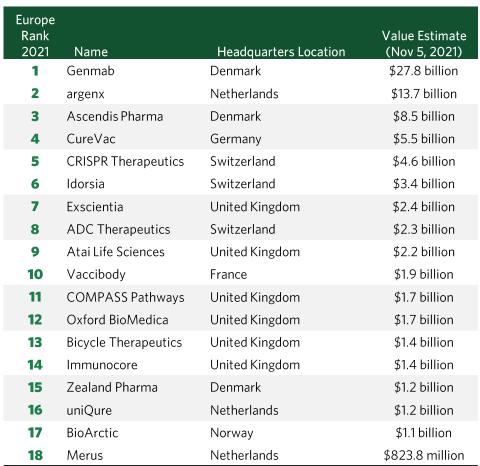
China has made a deliberate effort to attract home its nationals from Western countries and to encourage them to engage in entrepreneurial activities in the biotechnology industry.

Last year's list included numerous Japanese and South Korean companies. The bar has gotten much higher in Asia and this year there is only one Japanese company on the list (Peptidream) and none from South Korea. China has come to dominate the biotech scene in Asia.

Value Rank 2020	Company	Lead Modality	HQ Location	Total Value 2021 (Nov 5)	Total Value 2020 (Sep 15)
1	Legend Biotech	Cell Therapy	China	\$5.8 billion	\$3.6 billion
2	Remegen	Biologics	China	\$5.6 billion	NA
3	Chi-Med	Small Molecules	Hong Kong	\$4.3 billion	\$4.5 billion
4	I-Mab	Biologics	China	\$4 billion	\$2.3 billion
5	Akeso	Biologics	China	\$3.7 billion	\$2.6 billion
6	Sinocelltech Group	Vaccines	China	\$3.6 billion	NA
7	PeptiDream	Peptides	Japan	\$3.1 billion	\$5.1 billion
8	Brii Biosciences Limited	Small Molecules	China	\$3.1 billion	NA
9	Innocare	Small Molecules	Hong Kong	\$2.7 billion	\$1.5 billion
10	Everest Medicines	Biologics	China	\$2.7 billion	NA
11	Imugene Limited	Vaccines	Australia	\$2.5 billion	NA
12	Chipscreen	Small Molecules	China	\$2.3 billion	\$2.8 billion
13	CARsgen Therapeutics	Cell Therapy	China	\$2.2 billion	NA
14	Zelgen Bio	Small Molecules	China	\$2.2 billion	\$2.6 billion
15	Keymed Biosciences	Biologics	China	\$2.1 billion	NA
16	Clover Biopharmaceutica	IsVaccines	China	\$2.1 billion	NA
17	LianBio	Small Molecules	China	\$1.8 billion	NA
18	Kintor Pharma	Small Molecules	China	\$1.7 billion	\$363 million
19	Medigen Vaccine	Vaccines	Taiwan	\$1.7 billion	\$640 million
20	Alphamab Oncology	Biologics	China	\$1.5 billion	\$1.6 billion

20 Most Valuable Biotechs in Europe and North America









US Rank 2021	Name	Headquarters Location	Value Estimate (Nov 5, 2021)
1	Novavax	Washington DC Area, US	\$10.2 billion
2	Acceleron	Boston Area, US	\$10 billion
3	Intellia Therapeutics	Boston Area, US	\$9.5 billion
4	Arrowhead Pharma	Los Angeles, US	\$7.9 billion
5	Bridgebio Pharma	Bay Area, US	\$7.7 billion
6	Mirati Therapeutics	San Diego, US	\$7.3 billion
7	Cerevel Therapeutics	Boston Area, US	\$6.2 billion
8	Kodiak Sciences	Bay Area, US	\$5.5 billion
9	Denali Therapeutics	Bay Area, US	\$5.4 billion
10	Beam Therapeutics	Boston Area, US	\$5.4 billion
11	Fate Therapeutics	San Diego, US	\$5.3 billion
12	Allakos	Bay Area, US	\$4.5 billion
13	Karuna Therapeutics	Boston Area, US	\$4.1 billion
14	Ionis	San Diego, US	\$4.1 billion
15	Roivant Sciences	New York Area, US	\$4 billion
16	Aurinia Pharma	Vancouver, Canada	\$3.8 billion
17	ImmunityBio	Los Angeles, US	\$10.2 billion
18	Zentalis Pharma	New York Area, US	\$10 billion



Top 75 Players in Branded Pharma

(November 5, 2021, Ranked by Enterprise Value)

Rank	Company	Value	Rank	Company	Value	Rank	Company	Value
1	Pfizer	\$289 billion	26	Vertex Pharma	\$42.9 billion	51	Kyowa Kirin	\$14.8 billion
2	AbbVie	\$276 billion	27	Merck KGaA Pharma Segment	\$42.9 billion	52	Octapharma	\$14.8 billion
3	Roche Pharma Segment	\$264 billion	28	Daiichi Sankyo	\$41.5 billion	53	Jazz Pharma	\$14.3 billion
4	Novo Nordisk	\$254 billion	29	Biogen	\$40.2 billion	54	Recordati	\$14.3 billion
5	Eli Lilly	\$252 billion	30	Bausch Health	\$32.9 billion	55	Pierre Fabre	\$14.2 billion
6	Janssen (J&J Pharma Segment)	\$241 billion	31	Zhifei Bio	\$32.6 billion	56	Incyte	\$12.8 billion
7	Merck	\$224 billion	32	Seagen	\$32.5 billion	57	Ferring	\$12 billion
8	AstraZeneca	\$208 billion	33	BeiGene	\$31 billion	58	Innovent Biologics	\$11.5 billion
9	Novartis	\$192 billion	34	Astellas	\$29.7 billion	59	Kangtai Bio	\$11.4 billion
10	GSK Pharma Segment	\$173 billion	35	Servier	\$29 billion	60	R-Pharm	\$10.6 billion
11	Bristol-Myers Squibb	\$161 billion	36	Horizon Therapeutics	\$26.7 billion	61	Mundipharma	\$10.6 billion
12	Sanofi	\$142 billion	37	Menarini	\$24.7 billion	62	Hansoh Pharma	\$10.4 billion
13	Amgen	\$139 billion	38	UCB	\$24.5 billion	63	NC Pharma / EMS	\$10 billion
14	Boehringer Ingelheim	\$121 billion	39	Grifols	\$22.6 billion	64	Ono	\$10 billion
15	Bayer Pharma Segment	\$112 billion	40	Alnylam	\$20.8 billion	65	Biohaven	\$9.7 billion
16	CSL	\$110 billion	41	Otsuka	\$20 billion	66	Sobi	\$9.4 billion
17	Gilead	\$103 billion	42	Eisai	\$19.7 billion	67	Grupo Insud	\$9.3 billion
18	Moderna	\$88 billion	43	Fosun Pharma	\$19.6 billion	68	Vifor Pharma	\$8.9 billion
19	Takeda	\$76.7 billion	44	Imeik Technology	\$18.5 billion	69	Bracco	\$8.6 billion
20	Chugai	\$58.2 billion	45	Shionogi	\$18.1 billion	70	LEO Pharma	\$8.6 billion
21	Regeneron	\$55.2 billion	46	Organon	\$18.1 billion	71	lpsen	\$8.6 billion
22	BioNTech	\$51.5 billion	47	Galderma	\$16.3 billion	72	Neurocrine	\$8.5 billion
23	Hengrui Medicine	\$48.9 billion	48	Chiesi	\$15.8 billion	73	Grünenthal	\$7.9 billion
24	CSPC Pharma	\$47 billion	49	SK Bioscience	\$15.6 billion	74	Sarepta Therapeutics	\$7.3 billion
25	Qilu Pharma	\$44.3 billion	50	BioMarin	\$15.4 billion	75	CanSino Biologics	\$7.1 billion

Top Branded Pharmaceutical Companies in Cardiometabolic Care

The table here lists the most valuable branded players whose leading product(s) are in the cardiometabolic field. All three of the top players in cardiometabolic care are focused on the treatment of diabetes:

#1 Eli Lilly leadership in diabetes care products led by Humalog® and Trulicity®

#2 Novo Nordisk generated over \$15 billion in revenue from diabetes care and obesity products in 2020 that was comprised of roughly two thirds insulin sales and one third in GLP-1 sales.

#3 Boehringer-Ingelheim a major leader in cardiometabolic sales with strong results from its Trajenta® and Jardiance® franchise.

Major players in diabetes care that are not listed here due to the strength of other franchise areas include Merck and Sanofi.

Beyond diabetes care, core drivers in the cardiometabolic disease area were legacy sales from statins/blood pressure medications and novel anticoagulants led by Bayer with Xarelto[®].

Rank	Company	HQ Country	Focus Area	Value	Revenue '20
1	Novo Nordisk	Denmark	Diabetes Care	\$254 billion	\$21 billion
2	Eli Lilly	United States	Diabetes Care	\$252 billion	\$28 billion
3	Boehringer Ingelheim	Germany	Diabetes Care	\$121 billion	\$23 billion
4	Servier	France	Cardiometabolic	\$29 billion	\$5.5 billion
5	Menarini	Italy	Cardiometabolic	\$24.7 billion	\$4.7 billion
6	Recordati	Italy	Cardiometabolic	\$14.3 billion	\$1.8 billion
7	Italfarmaco	Italy	Cardiometabolic	\$4.2 billion	\$799 million
8	Grupo Ferrer	Spain	Cardiometabolic	\$3.4 billion	\$652 million
9	Kowa Pharma Segment	Japan	Lipid Management	\$3.3 billion	\$1.8 billion
10	Lantheus	United States	Cardiology Imaging	\$2 billion	\$390 million
11	Grupo Uriach	Spain	Cardiometabolic	\$1.5 billion	\$281 million
12	MannKind	United States	Lipids and Inflammation	\$1.3 billion	\$75 million
13	Amarin	United States	Diabetes Care	\$1.1 billion	\$606 million
14	LACER	Spain	Cardiometabolic	\$1.1 billion	\$204 million
15	HanAll Biopharma	South Korea	Cardiometabolic	\$833.5 million	\$84 million
16	Amryt Pharma	United States	Rare cardiovascular	\$822.5 million	\$203 million
17	Esperion	United States	Rare Liver Disease	\$720.7 million	\$73 million
18	Intercept Pharma	United States	Diabetes Care	\$693.3 million	\$354 million
19	Mochida	Japan	Cardiometabolic	\$593 million	\$945 million
20	Lexicon Pharma	United States	Lipid Management	\$590 million	\$0 million
21	Currax Pharma	United States	Obesity Control	\$422.4 million	\$80 million
22	TOA EIYO	Japan	Cardiovascular	\$416 million	\$131 million
23	Jeil	South Korea	Cardiometabolic	\$357.9 million	\$671 million
24	New American Therapeutics	United States	Blood Pressure	\$150 million	\$80 million
25	Evoke Pharma	South Korea	Cardiology	\$31.1 million	NA

Source: S&P CapitallQ and Torreya analysis, November 5, 2021.

Top Branded Pharmaceutical Companies in CNS Care

The table here lists the most valuable branded players whose leading product(s) are for the treatment of central nervous system (CNS) diseases.

CSPC is the largest marketer of CNS drugs in China and has generated excellent sales in recent years. Their principal focus has been psychiatry.

Biogen has an impressive \$11 billion franchise in multiple sclerosis, Alzheimer's and SMA drugs.

UCB is the third-largest player with \$3 billion in neurology revenue led by Vimpat and Keppra for epilepsy.

Otsuka continues to thrive in psychiatry with ongoing sales with its Abilify® franchise.

Mundipharma and Grünenthal continue to be important players in the field of pain medicines.

Sarepta continues to impress with its portfolio of ASO's in neuromuscular disease.

SK Biopharma is a new entrant in our ranks after a strong IPO. SK is launching cenobomate, a newly approved epilepsy drug.

Rank	Company	HQ Country	Focus Area	Value	Revenue
1	CSPC Pharma	Hong Kong	MS / Alzheimers	\$47 billion	\$6.5 billion
2	Biogen	United States	MS / Alzheimers	\$40.2 billion	\$11 billion
3	UCB	Belgium	Epilepsy	\$24.5 billion	\$6.5 billion
4	Otsuka	Japan	Psychiatry	\$20 billion	\$13 billion
5	Mundipharma	United States	Pain	\$10.6 billion	\$2 billion
6	Biohaven	United States	Pain	\$9.7 billion	\$190 million
7	Neurocrine	United States	Neurology	\$8.5 billion	\$1.1 billion
8	Grünenthal	Germany	Pain	\$7.9 billion	\$1.5 billion
9	Sarepta Therapeutics	United States	Neuromuscular	\$7.3 billion	\$646 million
10	SK Biopharma	South Korea	Neurology	\$6.3 billion	\$163 million
11	Lundbeck	Denmark	Psychiatry	\$6.2 billion	\$2.7 billion
12	Angelini	Italy	Neurology	\$6.2 billion	\$1.2 billion
13	Orion	Finland	Neurology	\$6.1 billion	\$1.2 billion
14	Dainippon Sumitomo	Japan	Neurology / Psych	\$6 billion	\$4.9 billion
15	Schwabe	Germany	Neurology	\$5.6 billion	\$1.1 billion
16	Alkermes	United States	Psychiatry	\$4.8 billion	\$1.1 billion
17	Green Valley Pharma	China	Alzheimer's	\$4.8 billion	\$900 million

Source: S&P CapitallQ and Torreya analysis, November 5, 2021.

Top Branded Pharmas in Dermatology

The field of dermatology has seen the emergence of big pharma interest but in no case does the big pharma have a primary focus on dermatology. Key larger pharma players not included in our table include Novartis, Pfizer, Janssen, AbbVie (absorbed Allergan's aesthetic business), BMS, Lilly (plus Dermira), Sun Pharma and Amgen. These companies are focused on serious inflammatory skin conditions such as atopic dermatitis and psoriasis.

This table gives more of a sense of the ranking of the pure play companies in dermatology.

Imeik Tech tops the list with a formidable presence in the China aesthetics market. Galderma is second and is rumored to be going public. Galderma has \$3 billion in revenues and is focused on growth in the fields of aesthetics, rare dermatologic and dermo-inflammatory diseases.

Pierre-Fabre has a substantial franchise in dermo-cosmetics and medical dermatologic products.

Other key players include LEO, Merz, Maruho, and Almirall.

Rank	Company	HQ Country	Focus Area	Value	Revenue
1	Imeik Technology	China	Aesthetics	\$18.5 billion	\$197 million
2	Galderma	Switzerland	Aesths, Med derm	\$16.3 billion	\$3.1 billion
3	Pierre Fabre	France	Aesths, Med derm	\$14.2 billion	\$2.7 billion
4	LEO Pharma	Denmark	Medical Derm	\$8.6 billion	\$1.6 billion
5	Merz	Germany	Aesthetics	\$6.1 billion	\$1.1 billion
6	Maruho	Japan	Medical Derm	\$4.1 billion	\$783 million
7	Almirall	Spain	Medical Derm	\$2.9 billion	\$960 million
8	Dr. August Wolff	Germany	Medical Derm	\$1.8 billion	\$340 million
9	Isdin	Spain	Medical Derm	\$1.5 billion	\$284 million
10	Hugel	South Korea	Aesthetics	\$1.5 billion	\$221 million
11	BNC Korea	South Korea	Aesthetics	\$1.1 billion	\$19 million
12	Revance	United States	Aesthetics	\$985.4 million	\$47 million
13	Kaken Pharma	Japan	Medical Derm	\$819.3 million	\$679 million
14	Medy-Tox	South Korea	Aesthetics	\$791.9 million	\$125 million
15	Crown Laboratories	United States	Aesthetics	\$546 million	\$100
16	Laboratoires Genévrier	France	Aesthetics	\$448.8 million	\$85 million
17	Cassiopea S.p.A.	Italy	Medical Derm	\$391.6 million	\$1 million
18	JETEMA, Co	South Korea	Medical Derm	\$391.5 million	\$197 million

Source: S&P CapitalIQ and Torreya analysis, November 5, 2021.

Top Branded Pharmas in Gastroenterology

Like dermatology, we have seen large pharma players make significant progress in this area with biologics and small molecule therapies aimed at autoimmune disease. These players include AbbVie, Amgen, Eli Lilly, Janssen and Pfizer.

Another important player is Bausch Health which is not a pure play and also has a significant business in Salix.

Takeda holds a leadership position in gastroenterology specialty companies led by Entyvio (Vedolizumab) for ulcerative colitis and Crohn's disease.

AlfaSigma is a major global player in GI with a franchise led by Rifaximin® (Xifaxin), an antibiotic used for several disease states.

Ironwood markets Linzess® for constipation with AbbVie and has built a strong commercial business.

There are a variety of highly focused pure play companies which include Dr. Falk, Biocodex, HK Inno.N, Cosmo, Zeria, Sebela, Mayoly Spindler, Ardelyx, RedHill and Romark. These companies have grown nicely over time.

Rank	Company	HQ Country	Value	Revenue
1	Takeda	Japan	\$76.7 billion	\$30 billion
2	Alfasigma	Italy	\$6.1 billion	\$1.2 billion
3	Nestlé Pharma Operations	Switzerland	\$3.9 billion	\$288 million
4	Norgine	Netherlands	\$2.8 billion	\$524 million
5	Dr. Falk Pharma	Germany	\$2.7 billion	\$521 million
6	Biocodex	France	\$2.4 billion	\$453 million
7	Ironwood Pharma	United States	\$2.1 billion	\$413 million
8	HK Inno.N Corporation	South Korea	\$1.9 billion	\$474 million
9	Sebela Pharma	United States	\$1.3 billion	\$250 million
10	Zeria Pharma	Japan	\$1.2 billion	\$513 million
11	Mayoly Spindler	France	\$1.1 billion	\$213 million
12	Cosmo Pharma	Switzerland	\$1.1 billion	\$75 million
13	Dr. Kade	Germany	\$494.2 million	\$94 million
14	Knight Therapeutics	Canada	\$401.3 million	\$171 million
15	Anterogen	South Korea	\$393.6 million	\$5 million
16	Romark	United States	\$369.6 million	\$70 million
17	Galen Pharma	United Kingdom	\$353.7 million	\$67 million
18	ASKA Pharmaceutical	Japan	\$306.8 million	\$499 million
19	VIVUS	United States	\$300.4 million	\$57 million
20	CTC BIO	South Korea	\$200.4 million	\$116 million

Source: S&P CapitallQ and Torreya analysis, November 5, 2021.

Top Branded Pharmas in Oncology

It is fair to say that oncology is largely the land of the giants through Roche, Pfizer, Merck, AZ, Novartis and BMS. with strong contributions from specialty players such as Ipsen, Incyte, Ono and Seagen. It's also noteworthy how large Chugai has become, largely by selling Roche antibodies in the Japan market (but also by selling its own antibodies through the Roche system).

Similarly, Hengrui has become quite large on the back of selling a deep portfolio of cytotoxics and kinase inhibitors into the China market. Like Hengrui, Qilu has become an increasingly important player in the China market, selling several billion dollars of oncology products into the Chinese hospital system. A key emerging player for the China market is BeiGene. This company is marketing a group of Celgene products in China while developing its own pipeline of differentiated kinase inhibitors and immune-oncology antibodies.

Rank	Company	HQ Country	Focus Area	Value	Revenue
1	Pfizer	United States	Kinase inhibitors	\$264 billion	\$50 billion
2	Roche Pharma Segment	Switzerland	Antibodies	\$262 billion	\$56 billion
3	Merck	United States	Immuno-oncology	\$241 billion	\$53 billion
4	AstraZeneca	United Kingdom	Kinase inhibitors	\$209 billion	\$30 billion
5	Novartis	Switzerland	Kinase inhibitors, RadioRx	\$189 billion	\$52 billion
6	Bristol-Myers Squibb	United States	Immuno-oncology	\$157 billion	\$45 billion
7	Chugai	Japan	Antibodies	\$57.7 billion	\$8 billion
8	BioNTech	Germany	Immuno-oncology	\$46.3 billion	\$4.4 billion
9	Hengrui Medicine	China	Diversified	\$44.3 billion	\$4.3 billion
10	Qilu Pharma	China	Diversified	\$42.9 billion	\$8.1 billion
11	Merck KGaA Pharma	Germany	Immuno-oncology	\$42.9 billion	\$9.1 billion
12	Daiichi Sankyo	Japan	ADCs	\$29.9 billion \$29.7 billion \$28.3 billion	\$1.7 billion
13	Seagen	United States	ADCs		\$947 million
14	BeiGene	China	Diversified		\$12 billion
15	Astellas	Japan	Androgen Deprivation	\$19.3 billion	\$6.1 billion
16	Eisai	Japan	Cytotoxics	\$12.8 billion	\$2.7 billion

Source: S&P CapitalIQ and Torreya analysis, November 5, 2021.

Top Branded Pharmas in Ophthalmology

Regeneron is the largest branded player whose lead product (Eylea®) is in ophthalmology. They have built a significant sales force in the U.S. in the area.

Bausch Health is also highly committed to the field and has recently indicated that they intend to spin out their eye business as Bausch+Lomb.

Santen has built a very strong franchise in Japan and is increasingly focused on international expansion.

Kanghong has introduced an anti-VEGF antibody into the China market and is doing well there.

Laboratoires Théa is world leader in ophthalmic innovation and positions themselves as providing a diversified set of products that will satisfy many different types of patients that are seen by an ophthalmologist.

Some key players that are not shown here because ophthalmology is not their primary indication are Novartis and AbbVie (acquired Allergan). Bayer and Roche are also major players in the field with a focus on back of the eye.

Rank	Company	HQ Country	Focus Area	Value	Revenue
1	Regeneron	United States	AMD	\$55.2 billion	\$13 billion
2	Bausch Health	Canada	Front of eye	\$32.9 billion	\$8.5 billion
3	Santen	Japan	Diversified	\$5.4 billion	\$2.3 billion
4	Laboratoires Théa	France	Diversified	\$3.7 billion	\$702 million
5	ROHTO	Japan	Diversified	\$3.1 billion	\$1.7 billion
6	Kanghong Pharma	China	Back of eye	\$2.2 billion	\$588 million
7	URSAPHARM	Germany	Dry eye	\$1.4 billion	\$267 million
8	Omeros	United States	Surgical pain	\$747 million	\$87 million
9	Aerie Pharmaceuticals	United States	Glaucoma	\$665.1 million	\$104 million
10	Senju Pharma	Japan	Front of eye	\$649.3 million	\$351 million
11	Farmigea	Italy	Diversified	\$632.2 million	\$120 million
12	EyePoint Pharmaceuticals	United States	Retina	\$325.4 million	\$33 million
13	Harrow Health	United States	Diversified	\$310.4 million	\$63 million
14	NTC Pharma	Italy	Diversified	\$247.1 million	\$47 million
15	Nicox	France	Front of Eye	\$116 million	\$14 million

Source: S&P CapitalIQ and Torreya analysis, November 5, 2021.

Top Branded Pharmas in Women's Health

Bayer is the leading company with a women's health focused franchise. Their Mirena® product for contraception is a best seller in the category.

Organon sells NuvaRing®, Nexplanon® and Follistim®. They are a new entrant in this year's ranking following their spinoff from Merck.

Ferring has one of the largest franchises in the field of fertility management.

Grupo Insud based in Argentina has built a significant global franchise in women's health.

IBSA is a major player in the fertility field (behind Ferring, Merck KGAA and Merck).

Other significant players include Gedeon Richter, Besins, Alora, Myovant Sciences, Theramex, Duchesnay and Mithra.

Other players not shown are Lilly (Forteo®), Amgen (Prolia®), Pfizer (Premarin®), Merck/Organon (NuvaRing® / Nexplanon® / Follistim®), Merck KGAA (fertility) and AbbVie (Estrace® cream). Astellas is preparing to enter the field.

Rank	Company	HQ Country	Focus Area	Value	Revenue
1	Bayer Pharma Segment	Germany	Contraception	\$112 billion	\$21 billion
2	Organon	United States	Fertility	\$18.1 billion	\$7.9 billion
3	Ferring	Switzerland	Fertility	\$12 billion	\$2.3 billion
4 5	Grupo Insud	Argentina	Diversified	\$9.3 billion	\$1.8 billion
	Gedeon Richter	Hungary	Diversified	\$5.2 billion	\$2 billion
6	IBSA	Switzerland	Fertility	\$4 billion	\$760 million
7	Besins	Monaco	Hormones	\$2.8 billion	\$527 million
8	Myovant Sciences	United Kingdom	Endometriosis	\$1.9 billion	\$145 million
9	Mithra	Belgium	Postmenopausal	\$1.3 billion	\$22 million
10	Alora Pharma	United States	Pre-Natal Health	\$1.1 billion	\$200 million
11	Duchesnay	Canada	Diversified	\$924 million	\$175 million
12	Theramex	United Kingdom	Diversified	\$903.1 million	\$171 million
13	TherapeuticsMD	United States	Pre-Natal Health	\$403 million	\$85 million
14	Fuji Pharma	Japan	Diversified	\$318.2 million	\$305 million
15	Laboraoires Majorelle	France	Diversified	\$211.2 million	\$40 million
16	JDS Therapeutics	United States	Postmenopausal	\$147.8 million	\$28 million
17	Millicent Pharma	Ireland	Contraception	\$145 million	NA
18	Evofem Biosciences	United States	Contraception	\$139.6 million	\$3 million
19	Afaxys Pharma	United States	Contraception	\$132 million	\$25 million
20	Agile Therapeutics, Inc.	United States	Diversified	\$97.1 million	\$3 million



Most Valuable Companies in INN Generics

This list ranks the top 28 players in INN generics. We have included divisions of pharma companies that are in INN generics (e.g., Sandoz division of Novartis) and have valued these as if they were private companies (using the industry median revenue multiple of 2.68x).

The sector is led by Viatris which has completed an important merger with Pfizer's established products group and is globalizing.

Teva follows at #2 and is down in value from revenue a bit from recent years, largely due to challenges in the U.S. market.

Sandoz is third with nearly ten billion dollars in revenue.

Sun Pharma is #4 in the world with an impressive topline revenue performance of \$4.8 billion.

Gland is a new entrant this year, debuting at #10 on our list.

Value Rank	Revenue	Value Rank	k				
2021	Rank 2021	2020	Company	Country	Portfolio	Value	Revenue
1	2	3	Viatris	United States	Diversified	\$40 billion	\$16 billion
2	3	2	Teva	Israel	Diversified	\$32.8 billion	\$16 billion
3	1	1	Sandoz	Germany	Diversified	\$26.5 billion	\$9.9 billion
4	4	4	Sun Pharma	India	Diversified	\$25 billion	\$4.8 billion
5	10	6	Dr. Reddy's	India	Diversified	\$10.4 billion	\$2.7 billion
6	5	5	Fresenius Kabi Segment	Germany	Injectables	\$10 billion	\$3.7 billion
7	9	9	Cipla	India	Diversified	\$9.5 billion	\$2.8 billion
8	13	8	Hikma	United Kingdom	Injectables	\$8.2 billion	\$2.4 billion
9	8	11	Endo International	United States	Diversified	\$7.8 billion	\$2.8 billion
10	24	NA	Gland Pharma	India	Injectables	\$7.7 billion	\$537 million
11	7	14	STADA	Germany	Diversified	\$7.7 billion	\$3.2 billion
12	15	17	Zydus Cadila	India	Diversified	\$7.6 billion	\$2.1 billion
13	20	12	Torrent Pharma	India	Diversified	\$7 billion	\$1.1 billion
14	11	10	Baxter Pharma	United States	Injectables	\$6.7 billion	\$2.5 billion
15	12	7	Hetero Drugs	India	Diversified	\$6.7 billion	\$2.5 billion
16	14	16	Lupin	India	Diversified	\$5.9 billion	\$2.2 billion
17	19	18	Alkem	India	Diversified	\$5.8 billion	\$1.3 billion
18	17	13	Apotex	Canada	Diversified	\$5.4 billion	\$2 billion
19	6	15	Aurobindo	India	Diversified	\$5.3 billion	\$3.3 billion
20	16	20	Amneal	United States	Diversified	\$3.5 billion	\$2.1 billion
21	25	25	Ajanta Pharma	India	Diversified	\$2.4 billion	\$423 million
22	18	23	Glenmark	India	Diversified	\$2.3 billion	\$1.6 billion
23	21	22	Emcure	India	Diversified	\$2.2 billion	\$808 million
24	27	24	Natco	India	Diversified	\$1.9 billion	\$255 million
25	22	21	Pharmascience	Canada	Diversified	\$1.9 billion	\$700 million
26	26	26	Pharmathen	Netherlands	Injectables	\$1.9 billion	\$283 million
27	23	27	Akorn	United States	Liquids	\$1.8 billion	\$664 million
28	28	19	Padagis	United States	Diversified	\$1.5 billion	\$968 million

Source: S&P CapitalIQ and Torreya analysis, November 5, 2021.

Top Companies in Generics (Branded and INN)

This ranking integrates INN generic manufacturers and marketers with branded generic players. Big pharma off-patent brand portfolios are included and valued using the median generic industry revenue multiple.

The largest player is Yangtze River Pharma Group (YRPG) with \$16bn in revenue, almost all from China. This is a sad year for YRPG with the <u>death</u> of Xu Jingren, the company's quiet builder and chairman.

Viatris is next, fresh off its combination with Pfizer's established brand business.

Pientzehuang Pharma ranks high with excellent growth in China.

Teva, GSK established brands and Sandoz, take fourth, fifth and sixth, respectively.

Sun continues to impress with excellent growth and share price performance.

Value	.	Value					
Rank 2021	Revenue Rank 2021	Rank 2020	Company	Country	Portfolio	Value	Revenue
1	1	2	Yangtze River Pharma	China	Oral solid dose, TCM	\$42.9 billion	\$16 billion
2	10	3	Viatris	United States	Diversified	\$40 billion	\$16 billion
3	8	28	Pientzehuang Pharma	China	Oral solid dose, TCM	\$38 billion	\$1.2 billion
4	4	1	Teva	Israel	Diversified	\$32.8 billion	\$16 billion
5	2	4	GSK Established Brands	United Kingdom	Off-patent brands	\$27.1 billion	\$10.1 billion
6	3	5	Sandoz	Germany	Diversified	\$26.5 billion	\$9.9 billion
7	13	10	Sun Pharma	India	Diversified	\$25 billion	\$4.8 billion
8	5	26	Celltrion	South Korea	Biosimilars	\$21.3 billion	\$1.7 billion
9	7	27	Changchun Tech	China	Diversified	\$17.1 billion	\$1.6 billion
10	9	6	Kelun Group	China	Diversified	\$16.1 billion	\$6 billion
11	11	7	Jemincare	China	Oral solid dose, TCM	\$16.1 billion	\$6 billion
12	6	13	Sino Biopharma	Hong Kong	Diversified	\$15.4 billion	\$3.9 billion
13	14	11	Abbott EPD	United States	Diversified	\$15.4 billion	\$4.3 billion
14	12	8	Yunnan Baiyao	China	Oral solid dose, TCM	\$14 billion	\$5.8 billion
15	17	32	Walvax	China	Biosimilars	\$13.4 billion	\$543 million
16	21	22	Dr. Reddy's	India	Diversified	\$10.4 billion	\$2.7 billion
17	16	14	Fresenius Kabi Segment	Germany	Injectables	\$10 billion	\$3.7 billion
18	30	9	Huadong Medicine	China	Diversified	\$9.9 billion	\$5.3 billion
19	18	15	Shanghai Pharma Rx	China	Diversified	\$9.7 billion	\$3.6 billion
20	26	21	Cipla	India	Diversified	\$9.5 billion	\$2.8 billion
21	19	16	Tianjin Pharma	China	Oral solid dose, TCM	\$8.9 billion	\$3.3 billion
22	32	23	Aspen Pharmacare	South Africa	Diversified	\$8.3 billion	\$2.6 billion
23	25	31	Kangmei Pharma	China	Diversified	\$8.2 billion	\$702 million
24	24	24	Hikma	United Kingdom	Injectables	\$8.2 billion	\$2.4 billion
25	20	18	Roemmers	Argentina	Diversified	\$8 billion	\$3 billion
26	15	30	Hualan Bio	China	Biosimilars	\$8 billion	\$824 million
27	27	29	Serum Institute of India	India	Biosimilars	\$7.9 billion	\$862 million
28	23	12	CR Pharma Rx Segment	Hong Kong	Oral solid dose, TCM	\$7.9 billion	\$4.2 billion

Top Biosimilar Businesses by Value

This ranking shows publicly traded biosimilar companies by valuation and includes imputed valuations of biosimilar business segments where revenue data are available. Notably, biosimilar revenue multiples are extraordinarily quite high (median ratio of enterprise value to revenue globally in the sector is 9.2x) meaning the implied value of certain biosimilar businesses can be surprising. For example, we value Sandoz's booming biosimilar business at \$17.8 billion (about 9% of Novartis' total valuation as a company). Sandoz has the second most valuable biosimilar business in our value ranking.

Celltrion is number 1 by value after heavy investment in manufacturing, portfolio and global expansion. Other top players include Changchun (#3) who are growing well in China, Amgen (#4) who are leveraging one of the world's best biologic manufacturing bases and Pfizer (#5) who have built a surprisingly strong business.

Other key players in China include Walvax (#6), Hualan (#9), King-Friend (#12), Baiyunshan (#14), Yifan (#18), Sinovac Life Sciences (#19) and Haohai Bio (#20).

South Korea excels in this field. Behind Celltrion is Samsung Biologics (#8) and ALTEOGEN (#26).

Value Rank	Revenue Rank				
2021	2021	Company	Country	Value	Revenue
1	2	Celltrion	South Korea	\$21.3 billion	\$1.7 billion
2	1	Sandoz	Germany	\$17.8 billion	\$1.9 billion
3	4	Changchun Tech	China	\$17.1 billion	\$1.6 billion
4	3	Amgen	United States	\$15.6 billion	\$1.7 billion
5	5	Pfizer	United States	\$14.1 billion	\$1.5 billion
6	15	Walvax	China	\$13.4 billion	\$543 million
7	6	Teva	Israel	\$13.2 billion	\$1.4 billion
8	7	Samsung Biologics	South Korea	\$9.9 billion	\$1.1 billion
9	11	Hualan Bio	China	\$8 billion	\$824 million
10	10	Serum Institute of India	India	\$7.9 billion	\$862 million
11	12	Biogen	United States	\$7.4 billion	\$800 million
12	17	King-Friend Bio	China	\$7.3 billion	\$506 million
13	8	Biocon	India	\$5.9 billion	\$979 million
14	NA	Guangzhou Baiyunshan	China	\$5.2 billion	\$11 billion
15	14	Gan & Lee Pharma	China	\$5.2 billion	\$570 million
16	19	BIOCAD	Russia	\$4.2 billion	\$461 million
17	18	Dongbao Pharma	China	\$3.7 billion	\$491 million
18	13	Yifan Pharma	China	\$3.3 billion	\$722 million
19	16	Sinovac Life Sciences	China	\$3.3 billion	\$511 million
20	NA	Haohai Biotech	China	\$3.3 billion	NA
21	22	Kyowa Kirin	Japan	\$3.2 billion	\$352 million
22	23	AnkeBio	China	\$3 billion	\$325 million
23	24	PROBIOMED	Mexico	\$2.9 billion	\$317 million
24	46	Alvotech	Iceland	\$2.7 billion	NA
25	25	Organon	United States	\$2.7 billion	\$292 million
26	39	ALTEOGEN	South Korea	\$2.4 billion	\$33 million
27	9	3SBio	China	\$2.3 billion	\$929 million
28	20	Biolab Sanus Pharma	Brazil	\$2.2 billion	\$418 million

Source: S&P CapitallQ and Torreya analysis, November 5, 2021.



Top Companies in Animal Health

(as of November 5, 2021)

This ranking combines publicly-traded players in medicines for animal health with private players and segments of private and public companies.

Private companies and segments are valued at the sector's median revenue multiple of 5.28 times.

Zoetis is by far the largest animal health player and has exhibited rapid growth in both the companion animal and livestock. Zoetis is doing well in parasiticides and is introducing antibodies to the marketplace.

Boehringer Ingelheim's business is thriving following its asset swap with Sanofi in 2017.

Merck Animal Health has thrived during the pandemic and has recently introduced products for the management of pet stress.

Elanco rounds out the top four players and has growth enormously by acquisition since its spinout from Eli Lilly.

	Value	Revenue					
	Rank 2021	Rank 2021	Company	Business Type	Headquarters Location	Value	Revenue (2020)
	1	1	Zoetis	Public Company	New York Area, US	\$106 billion	\$7.4 billion
	2	2	Boehringer Ingelheim	Private Segment	Ingelheim, Germany	\$25.1 billion	\$4.8 billion
	3	3	Merck Merial	Public Segment	New York Area, US	\$24.8 billion	\$4.7 billion
	4	4	Elanco	Public Company	Indiana, US	\$21.1 billion	\$4.6 billion
	5	7	Dechra Pharma	Public Company	Northern UK	\$7.9 billion	\$840 million
	6	5	Ceva Santé Animale	Private Company	Rhine Area, Germany	\$7.4 billion	\$1.4 billion
	7	10	Genus	Public Company	London, United Kingdom	\$5.1 billion	\$793 million
	8	6	Virbac	Public Company	France, Other	\$4.2 billion	\$1.2 billion
	9	12	Kyoritsu Seiyaku	Private Company	Tokyo, Japan	\$2.9 billion	\$545 million
	10	17	Jinyu Bio-Tech	Public Company	Mongolia	\$2.5 billion	\$281 million
	11	11	Vétoquinol	Public Company	Paris, France	\$2 billion	\$577 million
	12	14	Huvepharma	Private Company	Bulgaria	\$1.7 billion	\$327 million
	13	9	China Animal Husbandry	Public Company	Beijing, China	\$1.7 billion	\$817 million
	14	16	HIPRA	Private Company	Spain, Other	\$1.5 billion	\$293 million
	15	24	Keqian Biology	Public Company	Hubei Province, China	\$1.5 billion	\$157 million
	16	30	Hile Bio-Technology	Public Company	Shanghai, China	\$1.3 billion	\$51 million
	17	8	Phibro Animal Health	Public Company	New York Area, US	\$1.2 billion	\$833 million
	18	18	Norbrook Laboratories	Private Company	Northern Ireland, UK	\$1.2 billion	\$231 million
	19	19	Bimeda Animal Health	Private Company	Ireland	\$1.2 billion	\$229 million
	20	21	Pulike Biological	Public Company	Henan Province, China	\$838.6 million	\$171 million
•	21	25	VIC Group	Private Company	Russia	\$797.2 million	\$151 million
	22	15	Jinhe Biotech	Public Company	Liaoning Province, China	\$742.2 million	\$318 million
	23	13	ZENOAQ	Private Company	Tokyo, Japan	\$665.6 million	\$360 million
	24	20	Sequent Scientific	Public Company	Mumbai, India	\$653 million	\$185 million
	25	22	Vland Biotech	Public Company	Shandong Province, China	\$624.2 million	\$171 million
	26	27	Fatro	Private Company	Milan, Italy	\$616.1 million	\$117 million
	27	32	Shen Lian Biomedical	Public Company	Shanghai, China	\$610.7 million	\$48 million
	28	34	Komipharm International	Public Company	South Korea	\$501.5 million	\$32 million

Source: S&P CapitalIQ and Torreya research / Analysis, November 5, 2021.



Private Equity Funds are Major Players in the Pharma Sector

Private equity (PE) investors are playing an increasingly important role as investors in the biopharmaceutical industry.

These investors facilitate value creation and transitions for family-owned companies. Private equity funds have been particularly important in the pharmaceutical services area, funding growth plans and exits in the CDMO / CMO sector.

As we have noted the pharma sector is not without risk. For this reason, not all PE investors have the stomach to play in this field.

We looked at news stories for each company in the Pharma 1000 and relevant databases to determine if a private equity investor or family office (aside from the core ownership group) was invested in the company.

We found that more than 10% of the companies had such an investor involved.

Many others had worked with private equity investors in the past, but these investors were no longer involved.

Percent of commercial stage companies in the Pharma 1000 that have a private equity investor in the cap table:

13%

Most Active PE Investors in Commercial Pharma

TWENTY MOST ACTIVE FINANCIAL SPONSOR INVESTORS BY DEAL COUNT IN PHARMA AS OF NOVEMBER 2021

Investor	Current Pharma Investments	Illustrative Investment
8° EIGHT ROADS	5	Innovent ^{信 达 生 物 制 药}
AVISTA GAPITAL PARTNERS	4	Lantheus
DEERFIELD	4	M elinta
EDH	4	SCICLONE® PHARMACEUTICALS
(ATHYRIUM	3	③ SECURA BIO™
BainCapita	al 3	STADA Arzneimittel
CHRYSCAPITA	ΛГ 3	INTAS
CITIC CAPÎTA	1 3	ò 3SBio
CVC CAPITAL PARTNERS	3	RECORDATI
EQT	3	SODI Pioneer in Rare Diseases

Investor	Current Pharma Investments	Illustrative Investment
Essex Woodlands	3	EUSA Pharma
Hillhouse Capital	3	China Biologic Products, Inc.
novo holdings	3	Lantheus Holdings
PERCEPTIVE ADVISORS	3	ADMA BIOLOGICS
TEMASEK	3	INTAS
<u>WAYPOINT</u>	<u> </u>	STALLERGENES 🛟 GREER"
AD	2	W acino
ALTARIS	2	△ Padagis.
AVEGO HEALTHCARE CAPITAL	2	SEBELA° PHARMACEUTICALS INC.
Blackstone	2	AYUMI Pharmaceutical

Most Valuable Royalty Receivers

SIX MOST VALUABLE ROYALTY COMPANIES

Value Estimate (\$ billions)	Royalties in 2020 (\$ millions)
\$29 billion	\$2.3 billion
\$6.4 billion	NA
\$5.5 billion	\$412 million
\$2.5 billion	\$252 million
\$1.6 billion	\$375 million
\$0.3 billion	\$29 million
	\$29 billion \$6.4 billion \$5.5 billion \$1.6 billion

OTHER COMPANIES WHICH ARE SIGNIFICANT ROYALTY RECEIVERS IN THE PHARMA SECTOR













































Top 20 Private Companies by Value Worldwide

(as of November 5, 2021)

Global Private	Global All			
Value Rank	Companies Rank	Company	Location	Value Estimate
1	14	Boehringer Ingelheim	Germany	\$121 billion
2	25	CSPC Pharma	Hong Kong	\$47 billion
3	26	Qilu Pharma	China	\$44.3 billion
4	28	Yangtze River Pharma	China	\$42.9 billion
5	41	Servier	France	\$29 billion
6	45	Menarini	Italy	\$24.7 billion
7	58	Galderma	Switzerland	\$16.3 billion
8	60	Jemincare	China	\$16.1 billion
9	59	Kelun Group	China	\$16.1 billion
10	61	Chiesi	Italy	\$15.8 billion
11	66	Octapharma	Switzerland	\$14.8 billion
12	70	Pierre Fabre	France	\$14.2 billion
13	75	STADA	Germany	\$12.7 billion
14	76	Ferring	Switzerland	\$12 billion
15	80	R-Pharm	Russia	\$10.6 billion
16	81	Mundipharma	United States	\$10.6 billion
17	84	NC Pharma / EMS	Brazil	\$10 billion
18	94	Grupo Insud	Argentina	\$9.3 billion
19	95	Intas Pharma	India	\$9.2 billion
20	96	Tianjin Pharma	China	\$8.9 billion

Source: Torreya research and analysis, November 5, 2021.

Top 20 Private Companies by Value in the Americas

(as of November 5, 2021)

Americas Private Rank 2021	Global Value Rank	Name	Headquarters Location	Value Estimate
1	81	Mundipharma	United States	\$10.6 billion
2	84	NC Pharma / EMS	Brazil	\$10 billion
3	94	Grupo Insud	Argentina	\$9.3 billion
4	108	Roemmers	Argentina	\$8 billion
5	132	Adimab	United States	\$6.4 billion
6	158	Apotex	Canada	\$5.4 billion
7	160	Grupo Bagó	Argentina	\$5.4 billion
8	164	Aché Laboratórios	Brazil	\$5.3 billion
9	202	Roivant Sciences	United States	\$4 billion
10	242	Megalabs	Uruguay	\$3.2 billion
11	258	Biosplice Therapeutics	United States	\$3 billion
12	264	PROBIOMED	Mexico	\$2.9 billion
13	278	Eurofarma	Brazil	\$2.7 billion
14	285	Prasco	United States	\$2.7 billion
15	329	Biolab Sanus Pharma	Brazil	\$2.2 billion
16	342	Alvogen	United States	\$2.1 billion
17	344	Azurity Pharma	United States	\$2.1 billion
18	367	Laboratorios Sanfer	Mexico	\$1.9 billion
19	379	Stendhal Pharma	Mexico	\$1.9 billion
20	378	Pharmascience	Canada	\$1.9 billion

Source: Torreya research and analysis, November 5, 2021.

Australia, Canada, Israel and Turkey Pharma Value Ranks

(as of November 5, 2021)

Australia

Value Rank	Global Rank	Company	Value	Revenue	
1	16	CSL	\$110 billion	\$10 billion	
2	304	Imugene Limited	\$2.5 billion	\$5 million	
3	450	Telix	\$1.5 billion	\$5 million	
4	690	Mesoblast \$787.1 million		\$7 million	
5	791	Mayne Pharma	\$651.3 million	\$300 million	
6	1043	Immutep Limited	\$376.1 million	\$3 million	
7	1058 Race Oncology Limited		\$366.3 million	NA	
8	1060	AVITA Medical, Inc.	\$366 million	\$29 million	
9	1144	PYC Therapeutics Limited	\$304.5 million	\$2 million	
10	1181	Starpharma	\$284.2 million	\$2 million	

Canada

Value Rank	Global Rank	Company	Value	Revenue	
1	35	Bausch Health	\$32.9 billion	\$8.5 billion	
2	158	Apotex	\$5.4 billion	\$2 billion	
3	205	Aurinia Pharma	\$3.8 billion	\$58 million	
4	378	Pharmascience	\$1.9 billion	\$700 million	
5	434	Xenon Pharmaceuticals	\$1.6 billion	\$18 million	
6	617	Duchesnay	\$924 million	\$175 million	
7	647	Repare Therapeutics	\$846.7 million	\$1 million	
8	720	Zymeworks	\$747.4 million	\$22 million	
9	852	HLS Therapeutics	\$563.7 million	\$59 million	
10	928	BELLUS Health	\$470.3 million	NA	

Israel

Rank	Global Rank	Company	Value	Revenue	
1	34	Teva	\$33.2 billion	\$16 billion	
2	343	Neopharm Ltd	\$2.1 billion	\$400 million	
3	574 Medison \$1.1 billion		\$1.1 billion	\$200 million	
4	776	Dexcel Pharma	\$670 million	\$250 million	
5	931	Bonus BioGroup	\$468 million	NA	
6	943	Compugen	\$456.1 million	\$2 million	
7	1189	UroGen Pharma	\$279.9 million	\$32 million	
8	1209	RedHill Biopharma	\$269 million	\$84 million	
9	1399	Gamida Cell Ltd.	\$175.8 million	NA	
10	1407	Sol-Gel Technologies	\$172 million	\$6 million	

Turkey

	Global				
Rank	Rank	Company	Value	Revenue	
1	227	Abdi Ibrahim	\$3.4 billion	\$650 million	
2	530	Sanovel	\$1.2 billion	\$227 million	
3	608 Eczacıbaşı Ilaç Sanayi		\$945.1 million	\$179 million	
4	766	Bilim Pharmaceuticals	\$686 million	\$256 million	
5	855 Kocak Farma		\$560.1 million	\$209 million	
6	859	Deva Holding	\$553.1 million	\$240 million	
7	935	Nobel Ilac	\$463.6 million	\$173 million	
8	1086	Er-Kim	\$345.9 million	\$66 million	
9	1185	Neutec llac	\$281.6 million	\$105 million	
10	1268	EastPharma	\$245.4 million	\$289 million	

China Companies Ranked by Value

(as of November 5, 2021)

China Rank	Global Rank	Company	Location	Value	Revenue
1	24	Hengrui Medicine	Jiangsu Province, China	\$48.9 billion	\$4.4 billion
2	25	CSPC Pharma	Hebei Province, China	\$47 billion	\$6.5 billion
3	27	Qilu Pharma	Shandong Province, China	\$44.3 billion	\$4.3 billion
4	32	Yangtze River Pharma	Jiangsu Province, China	\$42.9 billion	\$16 billion
5	33	Pientzehuang Pharma	Fujian Province, China	\$38.7 billion	\$1.2 billion
6	34	Zhifei Bio	Sichuan Province, China	\$32.6 billion	\$4 billion
7	38	BeiGene	Beijing, China	\$31 billion	\$1.1 billion
8	50	Fosun Pharma	Shanghai, China	\$19.6 billion	\$5.5 billion
9	51	Imeik Technology	Beijing, China	\$18.5 billion	\$197 million
10	56	Changchun Tech	Jilin Province, China	\$17.9 billion	\$1.6 billion
11	59	Jemincare	Jianxi Province, China	\$16.1 billion	\$6 billion
12	60	Kelun Group	Sichuan Province, China	\$16.1 billion	\$6 billion
13	61	Sino Biopharma	Hong Kong	\$14.7 billion	\$3.9 billion
14	68	Yunnan Baiyao	Yunnan Province, China	\$14 billion	\$5.8 billion
15	72	Walvax	Yunnan Province, China	\$12.7 billion	\$543 million
16	76	Innovent Biologics	Jiangsu Province, China	\$11.5 billion	\$744 million
17	77	Kangtai Bio	Guangdong Province, China	\$11.4 billion	\$499 million
18	78	Hansoh Pharma	Jiangsu Province, China	\$10.4 billion	\$1.4 billion
19	85	Shanghai Pharma - Mfg	Shanghai, China	\$9.7 billion	\$3.6 billion
20	87	Huadong Medicine	Zhejiang Province, China	\$9.5 billion	\$5.3 billion

China	Global				
Rank	Rank	Company	Location	Value	Revenue
21	96	Tianjin Pharma	Tianjin Province	\$8.9 billion	\$3.3 billion
22	103	Kangmei Pharma	Guangdong Province, China	\$8.5 billion	\$702 million
23	104	Hualan Bio	Henan Province, China	\$8.4 billion	\$824 million
24	111	CR Pharma Rx Segment	Hong Kong	\$7.9 billion	\$4.2 billion
25	113	King-Friend Bio	Jiangsu Province, China	\$7.7 billion	\$549 million
26	114	Harbin Pharma	Heilongjiang Province, China	\$7.7 billion	\$2.9 billion
27	121	Humanwell Healthcare	Hubei Province, China	\$7.2 billion	\$3.2 billion
28	123	CanSino Biologics	Tianjin Province	\$7.1 billion	\$482 million
29	124	Beijing Tong Ren Tang	Hebei Province, China	\$7.1 billion	\$2.2 billion
30	126	Zai Lab	Shanghai, China	\$6.7 billion	\$87 million
31	129	Shanghai RAAS	Shanghai, China	\$6.6 billion	\$585 million
32	139	Apeloa Pharma	Zhejiang Province, China	\$6.1 billion	\$1.3 billion
33	143	Tiantan Biological	Beijing, China	\$6 billion	\$563 million
34	146	Junshi Biosciences	Jiangsu Province, China	\$5.9 billion	\$512 million
35	147	Legend Biotech	Jiangsu Province, China	\$5.8 billion	\$89 million
36	150	Remegen	Shandong Province, China	\$5.6 billion	NA
37	156	Youcare Pharma	Beijing, China	\$5.4 billion	\$1.5 billion
38	162	Huahai Pharma	Zhejiang Province, China	\$5.3 billion	\$964 million
39	166	Gan & Lee Pharma	Beijing, China	\$5.2 billion	\$570 million
40	167	Guangzhou Baiyunshan	Guangdong Province, China	\$5.2 billion	\$11 billion

Eastern Europe Companies Ranked by Value

East Europe Rank	Global Rank	Company	Location	Value	Revenue
1	80	R-Pharm	Russia	\$10.6 billion	\$2 billion
2	168	Gedeon Richter	Hungary	\$5.2 billion	\$2 billion
3	188	BIOCAD	Russia	\$4.2 billion	\$461 million
4	216	KrKa	Slovenia	\$3.6 billion	\$1.8 billion
5	218	Pharmstandard	Russia	\$3.6 billion	\$1.3 billion
6	262	Zentiva	Czech Republic	\$2.9 billion	\$957 million
7	265	Polpharma	Poland	\$2.9 billion	\$1.1 billion
8	380	Adamed	Poland	\$1.9 billion	\$355 million
9	410	Huvepharma	Bulgaria	\$1.7 billion	\$327 million
10	421	Lancet Pharma	Russia	\$1.7 billion	\$624 million
11	473	Grindeks	Lativa	\$1.4 billion	\$269 million
12	491	Microgen	Russia	\$1.3 billion	\$145 million
13	563	Darnitsa	Ukraine	\$1.1 billion	\$133.9 million
14	592	Farmak	Ukraine	\$995.5 million	\$285 million
15	655	Medis	Slovenia	\$840.1 million	\$159 million
16	685	VIC Group	Russia	\$797.2 million	\$151 million
17	718	Pharm-Sintez	Russia	\$752.5 million	\$281 million
18	733	Tchaikapharma	Bulgaria	\$730.9 million	\$25 million
19	763	Valenta Pharma	Russia	\$689.2 million	\$257 million
20	784	Geropharm	Russia	\$663.1 million	\$72 million

India Companies Ranked by Value

(as of November 5, 2021)

India Rank	Global Rank	Company	Location	Value	Revenue
1	44	Sun Pharma	Mumbai, India	\$24.8 billion	\$4.9 billion
2	81	Dr. Reddy's	Hyderabad, India	\$10.7 billion	\$2.7 billion
3	89	Cipla	Mumbai, India	\$9.6 billion	\$2.8 billion
4	108	Intas Pharma	Ahmedabad, India	\$9.2 billion	\$2.2 billion
5	114	Serum Institute of India	Mumbai, India	\$7.8 billion	\$862 million
6	117	Gland Pharma	Hyderabad, India	\$7.7 billion	\$537 million
7	121	Zydus Cadila	Ahmedabad, India	\$7.2 billion	\$2.1 billion
8	125	Torrent Pharma	Ahmedabad, India	\$6.9 billion	\$1.1 billion
9	142	Hetero Drugs	Hyderabad, India	\$6.7 billion	\$2.5 billion
10	145	Lupin	Mumbai, India	\$6 billion	\$2.2 billion
11	148	Biocon	Bangalore, India	\$5.9 billion	\$979 million
12	149	Alkem	Mumbai, India	\$5.9 billion	\$1.3 billion
13	NA	Aurobindo	Hyderabad, India	\$5.4 billion	\$3.3 billion
14	156	Macleods Pharma	Mumbai, India	\$4.9 billion	\$992 million
15	212	lpca	Mumbai, India	\$3.6 billion	\$733 million
16	280	Mankind Pharma	Delhi, India	\$3.1 billion	\$695 million
17	303	Emcure	Mumbai, India	\$2.6 billion	\$808 million
18	311	Ajanta Pharma	Mumbai, India	\$2.5 billion	\$423 million
19	327	Glenmark	Mumbai, India	\$2.4 billion	\$1.6 billion
20	334	Jubilant Pharma Segment	India, Other	\$2.1 billion	\$791 million

India Rank	Global Rank	Company	Location	Value	Revenue
21	357	Alembic	Ahmedabad, India	\$2.1 billion	\$723 million
22	358	Micro Labs	Bangalore, India	\$2 billion	\$583 million
23	406	Natco	Hyderabad, India	\$2 billion	\$255 million
24	415	Bharat Biotech	Hyderabad, India	\$1.8 billion	\$148 million
25	428	Aristo Pharmaceuticals Pvt	India	\$1.7 billion	\$364 million
26	457	J. B. Chemicals	Mumbai, India	\$1.6 billion	\$286 million
27	464	Biological E.	Hyderabad, India	\$1.5 billion	\$162 million
28	467	Eris Lifesciences	Ahmedabad, India	\$1.5 billion	\$172 million
29	478	Reliance Life Sciences	Mumbai, India	\$1.5 billion	\$159 million
30	486	MSN Laboratories	Hyderabad, India	\$1.4 billion	\$520 million
31	579	USV	Mumbai, India	\$1.3 billion	\$502 million
32	602	Wockhardt	Mumbai, India	\$1 billion	\$400 million
33	626	SPARC	Mumbai, India	\$962.5 million	\$13 million
34	641	Strides Pharma Science	Bangalore, India	\$903.8 million	\$434 million
35	678	Cadila Pharma	Ahmedabad, India	\$859.7 million	\$321 million
36	693	Shilpa	Bangalore, India	\$802.1 million	\$126 million
37	778	Caplin Point Laboratories	Chennai, India	\$783.8 million	\$157 million
38	831	FDC	Mumbai, India	\$665.9 million	\$198 million
39	901	Indoco	Mumbai, India	\$594.1 million	\$190 million
40	934	La Renon Healthcare	Ahmedabad, India	\$499 million	\$77 million

Japan Companies Ranked by Value

(as of November 5, 2021)

Japan Rank	Global Rank	Company	Value	Revenue
1	20	Takeda	\$76.7 billion	\$30 billion
2	21	Chugai	\$58.2 billion	\$8 billion
3	30	Daiichi Sankyo	\$41.5 billion	\$9.1 billion
4	39	Astellas	\$29.7 billion	\$12 billion
5	51	Otsuka	\$20 billion	\$13 billion
6	52	Eisai	\$19.7 billion	\$6.2 billion
7	55	Shionogi	\$18.1 billion	\$2.6 billion
8	65	Kyowa Kirin	\$14.8 billion	\$3 billion
9	87	Ono	\$10 billion	\$3 billion
10	130	Mitsubishi Tanabe	\$6.5 billion	\$3.5 billion
11	142	Dainippon Sumitomo	\$6 billion	\$4.9 billion
12	155	Santen	\$5.4 billion	\$2.3 billion
13	171	Nippon Shinyaku	\$5 billion	\$1.2 billion
14	195	Maruho	\$4.1 billion	\$783 million
15	233	Kowa Pharma Segment	\$3.3 billion	\$1.8 billion
16	239	Meiji Pharma Business	\$3.2 billion	\$1.8 billion
17	245	PeptiDream	\$3.1 billion	\$103 million
18	250	ROHTO	\$3.1 billion	\$1.7 billion
19	255	JCR	\$3 billion	\$426 million
20	268	Asahi Kasei Pharma	\$2.9 billion	\$604 million

Japan Rank	Global Rank	Company	Value	Revenue
21	269	Kyoritsu Seiyaku	\$2.9 billion	\$545 million
22	301	Tsumura	\$2.5 billion	\$1.2 billion
23	318	Taisho Pharma	\$2.3 billion	\$2.4 billion
24	322	Sawai	\$2.3 billion	\$1.7 billion
25	397	Towa Pharma	\$1.8 billion	\$1.4 billion
26	409	Nichi-Iko	\$1.7 billion	\$1.7 billion
27	443	Hisamitsu	\$1.5 billion	\$1.1 billion
28	454	FujiFilm Pharma	\$1.5 billion	NA
29	475	JT Pharma / Torii	\$1.4 billion	\$765 million
30	480	Teijin Pharma	\$1.4 billion	\$750 million
31	525	Zeria Pharma	\$1.2 billion	\$513 million
32	573	Sosei	\$1.1 billion	\$85 million
33	589	AYUMI Pharmaceutical	\$1 billion	\$239 million
34	651	Nippon Kayaku Pharma	\$843.6 million	\$456 million
35	658	Healios	\$825.7 million	NA
36	664	Kaken Pharma	\$819.3 million	\$679 million
37	679	Kyorin	\$800.9 million	\$927 million
38	709	Nihon Chouzai Generic Drugs	\$764 million	\$413 million
39	738	SKK	\$725.2 million	\$392 million
40	740	Yoshindo	\$723.3 million	\$391 million

Latin America Companies Ranked by Value

Latin America Rank	Global Rank	Company	Location	Value	Revenue
1	83	NC Pharma / EMS	Sao Paolo Brazil	\$10 billion	\$1.9 billion
2	94	Grupo Insud	Argentina	\$9.3 billion	\$1.8 billion
3	105	Roemmers	Argentina	\$8 billion	\$3 billion
4	160	Aché Laboratórios	Sao Paolo Brazil	\$5.3 billion	\$1 billion
5	200	Hypera	Sao Paolo Brazil	\$3.9 billion	\$1 billion
6	218	Grupo Bagó	Argentina	\$3.5 billion	\$1.3 billion
7	234	Megalabs	Uruguay	\$3.2 billion	\$1.2 billion
8	255	PROBIOMED	Mexico	\$2.9 billion	\$317 million
9	273	Eurofarma	Sao Paolo Brazil	\$2.7 billion	\$1 billion
10	322	Biolab Sanus Pharma	Sao Paolo Brazil	\$2.2 billion	\$418 million
11	357	Laboratorios Sanfer	Mexico	\$1.9 billion	\$400 million
12	364	Stendhal Pharma	Mexico	\$1.9 billion	\$700 million
13	415	Liomont	Mexico	\$1.6 billion	\$600 million
14	423	Laboratorios Pisa	Mexico	\$1.6 billion	\$580 million
15	504	Tecnoquimicas	Colombia	\$1.2 billion	\$463 million
16	508	Laboratorio Elea	Argentina	\$1.2 billion	\$232 million
17	530	União Química	Sao Paolo Brazil	\$1.1 billion	\$427 million
18	536	Blau Farmacêutica	Sao Paolo Brazil	\$1.1 billion	\$267 million
19	538	Procaps	Colombia	\$1.1 billion	NA
20	680	Cristalia	Sao Paolo Brazil	\$769.1 million	\$287 million

Middle East and Africa Companies Ranked by Value

Africa &	Clabal David	C	Location	Value	D
Mideast Rank	Global Rank 106	Company Aspen Pharmacare	Location South Africa	\$8.1 billion	Revenue \$2.6 billion
1	190	Barakat Pharmaceutical	Iran	\$4.2 billion	\$1.6 billion
2					
3	261	Pars Darou	lran	\$2.9 billion	\$1.1 billion
4	306	Shafadarou Investment	lran	\$2.4 billion	\$907 million
5	412	Sobhan Pharma	Iran	\$1.7 billion	\$644 million
6	449	SPIMACO	Saudi Arabia	\$1.5 billion	\$410 million
7	510	SOTHEMA	Morocco	\$1.3 billion	\$217 million
8	707	Julphar	United Arab Emirates	\$766.6 million	\$189 million
9	712	Tabuk Pharma	Saudi Arabia	\$759.7 million	\$284 million
10	729	Amoun	Egypt	\$740 million	\$243 million
11	735	Bottu	Morocco	\$730.3 million	\$273 million
12	755	Cooper Pharma	Morocco	\$696.8 million	\$260 million
13	786	Exir Pharmaceutical	Iran	\$661.9 million	\$247 million
14	844	Farabi Pharma	Iran	\$576.2 million	\$215 million
15	871	Adcock Ingram	South Africa	\$537.8 million	\$545 million
16	878	Newbridge Pharma	United Arab Emirates	\$528 million	\$100 million
17	916	Ascendis Health	South Africa	\$482.5 million	\$156 million
18	1036	Cosar Pharmaceutical Company	Iran	\$380.5 million	\$142 million
19	1070	EIPICO	Egypt	\$355.5 million	\$194 million
20	1196	Ernest Chemists	Ghana	\$276 million	NA
21	1214	Pharmalink	United Arab Emirates	\$268 million	\$100 million
22	1213	MS Pharma - El Kendi	Algeria	\$268 million	\$100 million
23	1318	SAIDAL	Algeria	\$212.5 million	\$79 million
24	1409	Laprophan	Morocco	\$171.5 million	\$64 million

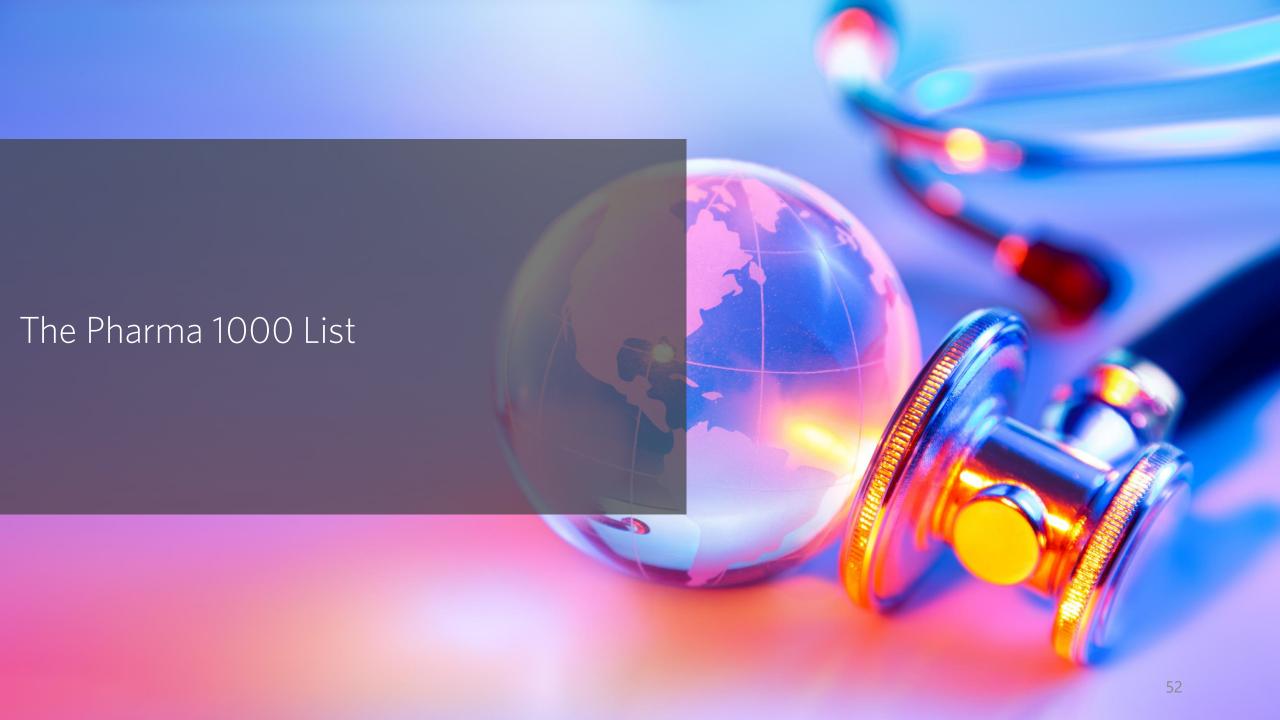
South Korea Companies Ranked by Value

Korea Rank	Global Rank	Company	Value	Revenue
1	48	Celltrion	\$22.1 billion	\$1.7 billion
2	62	SK Bioscience	\$15.6 billion	\$374 million
3	133	SK Biopharma	\$6.3 billion	\$163 million
4	184	Samsung Bioepis	\$4.4 billion	\$850 million
5	206	Celltrion Pharm	\$3.8 billion	\$244 million
6	222	Hanmi Pharm	\$3.5 billion	\$968 million
7	251	Yuhan Corporation	\$3.1 billion	\$1.5 billion
8	260	GC Pharma	\$2.9 billion	\$1.3 billion
9	272	LG Life Sciences	\$2.9 billion	\$540 million
10	280	ALTEOGEN	\$2.7 billion	\$33 million
11	314	Green Cross Holdings	\$2.3 billion	\$1.6 billion
12	353	Shin Poong	\$2.1 billion	\$167 million
13	375	HK Inno.N Corporation	\$1.9 billion	\$474 million
14	456	Hugel	\$1.5 billion	\$221 million
15	474	Daewoong Pharma	\$1.4 billion	\$976 million
16	481	Genexine	\$1.4 billion	\$39 million
17	533	Mezzion	\$1.2 billion	\$26 million
18	539	SK Chemical	\$1.2 billion	\$220 million
19	557	BNC Korea	\$1.1 billion	\$19 million
20	562	MedPacto	\$1.1 billion	NA

Korea Rank	Global Rank	Company	Value	Revenue
21	580	Green Cross Lab Cell	\$1 billion	\$94 million
22	583	GeneOne Life Science	\$1 billion	\$40 million
23	609	Sam Chun Dang Pharm	\$943.6 million	\$143 million
24	611	NKMax	\$942.4 million	\$11 million
25	624	ABL Bio Inc.	\$906.1 million	\$9 million
26	638	Boryung Pharma	\$866.6 million	\$520 million
27	639	Dong-A Socio	\$864.9 million	\$718 million
28	657	HanAll Biopharma	\$833.5 million	\$84 million
29	671	Vaxcell-Bio Therapeutics	\$810.5 million	NA
30	672	Oscotec	\$808.6 million	\$26 million
31	688	Medy-Tox	\$791.9 million	\$125 million
32	691	REYON Pharmaceutical	\$787.1 million	\$120 million
33	698	DONGKOOK Pharma	\$779 million	\$520 million
34	716	Yungjin Pharm	\$756.3 million	\$148 million
35	722	Huons	\$746.6 million	\$491 million
36	730	Chong Kun Dang Pharm	\$738.8 million	\$811 million
37	737	Bukwang Pharma	\$727.8 million	\$151 million
38	748	JW Holdings	\$707.2 million	\$691 million
39	750	PharmaResearch Products	\$702.4 million	\$118 million
40	777	SillaJen	\$667.8 million	\$1 million

Southeast Asia Companies Ranked by Value

					_
SE Asia Rank	Global Rank	Company	Location	Value	Revenue
1	165	Unilab	Philippines	\$5.3 billion	\$1 billion
2	170	Kalbe	Indonesia	\$5.1 billion	\$1.8 billion
3	426	Haw Par Corporation	Singapore	\$1.6 billion	\$71 million
4	429	The GPO	Thailand	\$1.6 billion	\$600 million
5	439	Siam Bioscience	Thailand	\$1.6 billion	\$169 million
6	461	Kimia Farma	Indonesia	\$1.5 billion	\$748 million
7	607	Dexa Medica	Indonesia	\$951 million	NA
8	788	Ampharco U.S.A.	Vietnam	\$659.2 million	\$246 million
9	861	Indofarma	Indonesia	\$550.3 million	\$146 million
10	903	DHG Pharma	Vietnam	\$497.7 million	\$181 million
11	997	SOHO Global Healthcare	Indonesia	\$410.4 million	\$373 million
12	1013	Berlin Pharma	Thailand	\$399.3 million	\$149 million
13	1056	Tempo Scan	Indonesia	\$367.6 million	\$786 million
14	1087	Codupha	Vietnam	\$345.1 million	\$129 million
15	1190	Pymepharco	Vietnam	\$278.3 million	\$95 million
16	1361	Hau Giang Pharmaceutical	Vietnam	\$192.9 million	\$72 million
17	1369	Euro-Med Laboratories	Philippines	\$189.9 million	\$72 million
18	1437	Darya-Varia Laboratoria	Indonesia	\$163.1 million	\$129 million



The World's Most Valuable Pharmaceutical Companies: Top 25

Va	alue Rai	nk									
2021	2020	2018	3 Name	Value Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
1	3	1	Pfizer	\$289 billion	\$69 billion	\$28 billion	New York Area, US	Public Company	Big Pharma	Small Molecules	Oncology
2	4	4	AbbVie	\$276 billion	\$54 billion	\$29 billion	Chicago Area	Public Company	Big Pharma	Biologics	Immunology
3	1	2	Roche Pharma Segment	\$264 billion	\$50 billion	\$23 billion	Basel, Switzerland	Public Company Segment	Big Pharma	Biologics	Oncology
4	10	9	Novo Nordisk	\$254 billion	\$21 billion	\$9.4 billion	Copenhagen, Denmark	Public Company	Big Pharma	Biologics	Diabetes Care
5	11	15	Eli Lilly	\$252 billion	\$28 billion	\$10 billion	Indiana, US	Public Company	Big Pharma	Biologics	Diabetes Care
6	2	5	Janssen (J&J Rx Seg)	\$241 billion	\$46 billion	\$8.8 billion	New York Area, US	Public Company Segment	Big Pharma	Biologics	Immunology
7	5	6	Merck	\$224 billion	\$53 billion	\$21 billion	New York Area, US	Public Company	Big Pharma	Biologics	Oncology
8	8	11	AstraZeneca	\$208 billion	\$30 billion	\$6.6 billion	Cambridge and Oxford, UK	Public Company	Big Pharma	Small Molecules	Oncology
9	6	3	Novartis	\$192 billion	\$52 billion	\$20 billion	Basel, Switzerland	Public Company	Big Pharma	Small Molecules	Oncology
10	13	7	GSK Pharma Segment	\$173 billion	\$33 billion	\$14 billion	London, United Kingdom	Public Company Segment	Big Pharma	Small Molecules	Respiratory
11	9	16	Bristol-Myers Squibb	\$161 billion	\$45 billion	\$20 billion	New York Area, US	Public Company	Big Pharma	Small Molecules	Oncology
12	15	12	Sanofi	\$142 billion	\$45 billion	\$13 billion	Paris, France	Public Company	Big Pharma	Small Molecules	Immunology
13	7	8	Amgen	\$139 billion	\$26 billion	\$12 billion	Los Angeles, US	Public Company	Big Pharma	Biologics	Immunology
14	12	13	Boehringer Ingelheim	\$121 billion	\$23 billion	\$3.8 billion	Rhine Area, Germany	Private Company	Big Pharma	Small Molecules	Diabetes Care
15	14	10	Bayer Pharma Segment	\$112 billion	\$21 billion	\$6.7 billion	Rhine Area, Germany	Public Company Segment	Big Pharma	Small Molecules	Cardiometabolic
16	17	20	CSL	\$110 billion	\$10 billion	\$3.5 billion	Melbourne, Australia	Public Company	Big Pharma	Blood Products	Hematology
17	19	26	Zoetis	\$106 billion	\$7.6 billion	\$3.1 billion	New York Area, US	Public Company	Animal Health	Small Molecules	Animal Health
18	18	14	Gilead	\$103 billion	\$27 billion	\$15 billion	Bay Area, US	Public Company	Big Pharma	Small Molecules	Virology
19	42	100	Moderna	\$88 billion	\$11.8 billion	\$7.8 billion	Boston Area, US	Public Company	Big Pharma	Nucleic Acids	Anti-Infectives
20	16	28	Takeda	\$76.7 billion	\$30 billion	\$10 billion	Tokyo, Japan	Public Company	Branded Pharma	Biologics	Gastroenterology
21	20	37	Chugai	\$58.2 billion	\$8 billion	\$3.5 billion	Tokyo, Japan	Public Company	Branded Pharma	Biologics	Oncology
22	23	33	Regeneron	\$55.2 billion	\$13 billion	\$7.5 billion	New York Area, US	Public Company	Branded Pharma	Biologics	Ophthalmology
23	67	NA	BioNTech	\$51.5 billion	\$9.2 billion	\$6.6 billion	Rhine Area, Germany	Public Company	Branded Pharma	Nucleic Acids	Oncology
24	21	27	Hengrui Medicine	\$48.9 billion	\$4.4 billion	\$1 billion	Jiangsu Province, China	Public Company	Branded Pharma	Small Molecules	Oncology
25	30	52	CSPC Pharma	\$47 billion	\$6.5 billion	NA	Hebei Province, China	Private Company	Branded Pharma	Small Molecules	CNS

Notes: Data sourced from S&P CapitallQ and Torreya research. The pharma segments of Roche, J&J,GSK and Bayer were valued using pharma revenue multiplied by the median branded pharma revenue multiple for publicly traded branded branded pharma companies.. CSPC was valued using a multiple that blended Hengrui's revenue multiple for branded pharmas as its business has increasingly involved branded injectable oncology products. The values of stakes in Allogene, Arvinas and Cerevel were deducted from Pfizer's value. The value of BMS's stake in NGM was deducted from its value. The value of Amgen's take in Beigene was deducted from its value.

Pharma 1000: Ranks 26 to 50

Va	alue Rai	nk				-					
2021	2020	2018	3 Name	Value Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
26	43	30	Qilu Pharma	\$44.3 billion	\$4.3 billion	NA	Shandong Province, China	Private Company	Branded Pharma	Small Molecules	Oncology
27	22	29	Vertex Pharma	\$42.9 billion	\$7.1 billion	\$2.8 billion	Boston Area, US	Public Company	Branded Pharma	Small Molecules	Rare Disease
28	27	22	Yangtze River Pharma	\$42.9 billion	\$16 billion	\$NA	Jiangsu Province, China	Private Company	Generics - China	Small Molecules	Broad
29	25	25	Merck KGaA Rx Seg	\$42.9 billion	\$8.1 billion	\$6.6 billion	Berlin, Germany	Public Company Segment	Branded Pharma	Biologics	Oncology
30	24	50	Daiichi Sankyo	\$41.5 billion	\$9.1 billion	\$1.3 billion	Tokyo, Japan	Public Company	Branded Pharma	Small Molecules	Oncology
31	53	31	Viatris	\$40.5 billion	\$16 billion	\$5.7 billion	Pittsburgh Area, US	Public Company	Generics - INN	Small Molecules	Respiratory
32	26	21	Biogen	\$40.2 billion	\$11 billion	\$3 billion	Boston Area, US	Public Company	Branded Pharma	Biologics	Neurology
33	49	77	Pientzehuang Pharma	\$38.7 billion	\$1.2 billion	\$427 million	Fujian Province, China	Public Company	Generics - China	Small Molecules	Broad
34	29	23	Teva	\$33.2 billion	\$16 billion	\$4.3 billion	Israel	Public Company	Generics - INN	Small Molecules	Respiratory
35	35	32	Bausch Health	\$32.9 billion	\$8.5 billion	\$3.1 billion	New York Area, US	Public Company	Branded Pharma	Small Molecules	Ophthalmology
36	32	66	Zhifei Bio	\$32.6 billion	\$4 billion	\$1.7 billion	Sichuan Province, China	Public Company	Branded Pharma	Vaccines	Vaccines
37	33	84	Seagen	\$32.5 billion	\$1.7 billion	-\$282 million	Seattle, US	Public Company	Branded Pharma	Biologics	Oncology
38	52	80	BeiGene	\$31 billion	\$1.1 billion	-\$1.3 billion	Beijing, China	Public Company	Branded Pharma	Small Molecules	Oncology
39	38	36	Astellas	\$29.7 billion	\$12 billion	\$2.8 billion	Tokyo, Japan	Public Company	Branded Pharma	Small Molecules	Oncology
40	36	42	Royalty Pharma	\$29 billion	\$2.3 billion	\$2.2 billion	New York Area, US	Public Company	Royalty Company	Biologics	Broad
41	28	38	Servier	\$29 billion	\$5.5 billion	NA	Paris, France	Private Company	Branded Pharma	Small Molecules	Cardiometabolic
42	47	68	Genmab	\$27.8 billion	\$1.2 billion	\$536 million	Copenhagen, Denmark	Public Company	Biotechnology	Biologics	Oncology
43	58	167	Horizon Therapeutics	\$26.7 billion	\$3 billion	\$673 million	Ireland	Public Company	Branded Pharma	Small Molecules	Rare Disease
44	64	54	Sun Pharma	\$24.8 billion	\$4.9 billion	\$1.3 billion	Mumbai, India	Public Company	Generics - INN	Small Molecules	Broad
45	34	41	Menarini	\$24.7 billion	\$4.7 billion	\$576 million	Florence, Italy	Private Company	Branded Pharma	Small Molecules	Cardiometabolic
46	44	56	UCB	\$24.5 billion	\$6.5 billion	\$1.7 billion	Belgium	Public Company	Branded Pharma	Biologics	Neurology
47	39	39	Grifols	\$22.6 billion	\$6.2 billion	\$1.5 billion	Barcelona, Spain	Public Company	Branded Pharma	Blood Products	Rare Disease
48	31	34	Celltrion	\$22.1 billion	\$1.7 billion	\$866 million	South Korea	Public Company	Biosimilars	Biologics	Immunology
49	71	NA	Elanco	\$21.7 billion	\$4.6 billion	\$935 million	Indiana, US	Public Company	Animal Health	Small Molecules	Animal Health
50	70	81	Alnylam	\$20.8 billion	\$749 million	-\$662 million	Boston Area, US	Public Company	Branded Pharma	Nucleic Acids	Hematology

Notes: . Qilu was valued using the revenue multiple of Hengrui as the companies are very similar in therapeutic mix and approach. The pharma segment of Merck KGAA was valued using pharma revenue multiple by the median branded pharma revenue multiple. Similarly, Servier, and Menarini were valued by multiplying 2020 revenue by the median revenue multiple for publicly traded branded pharma companies. Yangtze River Pharma was valued using the median multiple for publicly traded generic pharmaceutical companies.

Pharma 1000: Ranks 51 to 75

Va	alue Rai	nk									
2021	2020	2018	3 Name	Value Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
51	48	40	Otsuka	\$20 billion	\$13 billion	\$2.6 billion	Tokyo, Japan	Public Company	Branded Pharma	Small Molecules	Psychiatry
52	41	45	Eisai	\$19.7 billion	\$6.2 billion	\$1.1 billion	Tokyo, Japan	Public Company	Branded Pharma	Small Molecules	Oncology
53	62	47	Fosun Pharma	\$19.6 billion	\$5.5 billion	\$647 million	Shanghai, China	Public Company	Branded Pharma	Small Molecules	Broad
54	NA	NA	Imeik Technology	\$18.5 billion	\$197 million	\$141 million	Beijing, China	Public Company	Branded Pharma	Small Molecules	Aesthetics
55	72	60	Shionogi	\$18.1 billion	\$2.6 billion	\$1051 million	Osaka, Japan	Public Company	Branded Pharma	Small Molecules	Virology
56	NA	NA	Organon	\$18.1 billion	\$7.9 billion	\$2.4 billion	New York Area, US	Public Company	Branded Pharma	Biologics	Womens Health
57	46	123	Changchun Tech	\$17.9 billion	\$1.6 billion	\$776 million	Jilin Province, China	Public Company	Biosimilars	Biologics	Broad
58	51	73	Galderma	\$16.3 billion	\$3.1 billion	\$577 million	Geneva, Switzerland	Private Company	Branded Pharma	Small Molecules	Dermatology
60	54	NA	Jemincare	\$16.1 billion	\$6 billion	NA	Jianxi Province, China	Private Company	Generics - China	Naturals	Broad
59	50	24	Kelun Group	\$16.1 billion	\$6 billion	NA	Sichuan Province, China	Private Company	Generics - China	Small Molecules	Oncology
61	66	76	Chiesi	\$15.8 billion	\$2.6 billion	\$870.4 million	Italy, Other	Private Company	Branded Pharma	Small Molecules	Respiratory
62	NA	NA	SK Bioscience	\$15.6 billion	\$374 million	\$163 million	Seoul, Korea	Public Company	Branded Pharma	Vaccines	Vaccines
63	69	55	BioMarin	\$15.4 billion	\$1.8 billion	\$58 million	Bay Area, US	Public Company	Branded Pharma	Small Molecules	Rare Disease
64	65	70	Abbott EPD	\$15.4 billion	\$4.3 billion	NA	Chicago Area	Public Company Segment	Generics - Branded	Small Molecules	Broad
65	79	65	Kyowa Kirin	\$14.8 billion	\$3 billion	\$655 million	Tokyo, Japan	Public Company	Branded Pharma	Biologics	Hematology
66	61	72	Octapharma	\$14.8 billion	\$2.8 billion	\$528 million	Zurich, Switzerland	Private Company	Branded Pharma	Blood Products	Blood Products
67	45	44	Sino Biopharma	\$14.7 billion	\$3.9 billion	\$929 million	Hong Kong	Public Company	Generics - China	Small Molecules	Broad
68	111	74	Jazz Pharma	\$14.3 billion	\$2.6 billion	\$1.1 billion	Bay Area, US	Public Company	Branded Pharma	Small Molecules	Rare Disease
69	80	89	Recordati	\$14.3 billion	\$1.8 billion	\$649 million	Milan, Italy	Public Company	Branded Pharma	Small Molecules	Cardiometabolic
70	55	58	Pierre Fabre	\$14.2 billion	\$2.7 billion	NA	Paris, France	Private Company	Branded Pharma	Small Molecules	Dermatology
71	59	53	Yunnan Baiyao	\$14 billion	\$5.8 billion	\$584 million	Yunnan Province, China	Public Company	Generics - China	Naturals	Broad
72	103	223	argenx	\$13.7 billion	\$510 million	-\$273 million	Netherlands	Public Company	Biotechnology	Biologics	Neurology
73	57	62	Incyte	\$12.8 billion	\$2.9 billion	\$713 million	Philadelphia Area, US	Public Company	Branded Pharma	Small Molecules	Oncology
74	77	114	Walvax	\$12.7 billion	\$543 million	\$193 million	Yunnan Province, China	Public Company	Biosimilars	Vaccines	Vaccines
75	126	102	STADA	\$12.7 billion	\$3.2 billion	\$834 million	Hessen, Germany	Private Company	Generics - INN	Small Molecules	Broad

Notes: Kelun and Jemincare were valued using the median multiple for publicly traded generic pharmaceutical companies. Abbott's Established Pharma Division (EPD) was valued by adding the publicly-traded enterprise value of Abbott India to the product of the remaining divisional revenue in 2020 times the median revenue multiple for publicly traded generic companies. Chiesi was valued by multiplying its EBITDA times the median EBITDA multiple for branded pharma companies. Perring, Octapharma and Pierre Fabré were valued using each's company's latest reported annual revenue multiplied by the median branded pharma revenue multiple. STADA was valued by multiplying its EBITDA times the median EBITDA multiple for generic pharma companies.

Pharma 1000: Ranks 76 to 100

V	alue Rai	nk									
2021	2020	2018	3 Name	Value Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
76	63	71	Ferring	\$12 billion	\$2.3 billion	NA	Geneva, Switzerland	Private Company	Branded Pharma	Small Molecules	Womens Health
77	90	NA	Innovent Biologics	\$11.5 billion	\$744 million	-\$129 million	Jiangsu Province, China	Public Company	Branded Pharma	Biologics	Oncology
78	60	NA	Kangtai Bio	\$11.4 billion	\$499 million	\$222 million	Guangdong Province, China	Public Company	Branded Pharma	Vaccines	Vaccines
79	93	128	Dr. Reddy's	\$10.7 billion	\$2.7 billion	\$605 million	Hyderabad, India	Public Company	Generics - INN	Small Molecules	Broad
80	83	271	R-Pharm	\$10.6 billion	\$2 billion	NA	Russia	Private Company	Branded Pharma	Small Molecules	Oncology
81	73	51	Mundipharma	\$10.6 billion	\$2 billion	NA	New York Area, US	Private Company	Branded Pharma	Small Molecules	Pain
82	37	NA	Hansoh Pharma	\$10.4 billion	\$1.4 billion	\$465 million	Jiangsu Province, China	Public Company	Branded Pharma	Small Molecules	Oncology
83	154	485	Novavax	\$10.2 billion	\$1.2 billion	-\$1033 million	Washington DC Area, US	Public Company	Biotechnology	Vaccines	Vaccines
84	75	49	NC Pharma / EMS	\$10 billion	\$1.9 billion	NA	Sao Paolo Brazil	Private Company	Branded Pharma	Small Molecules	Broad
85	76	85	Fresenius Kabi Segment	\$10 billion	\$3.7 billion	NA	Hessen, Germany	Public Company Segment	Generics - INN	Small Molecules	Hospital
86	153	357	Acceleron	\$10 billion	\$113 million	NA	Boston Area, US	Public Company	Biotechnology	Small Molecules	Respiratory
87	68	67	Ono	\$10 billion	\$3 billion	\$1.1 billion	Osaka, Japan	Public Company	Branded Pharma	Biologics	Oncology
88	81	NA	Shanghai Pharma-Rx Seg	\$9.7 billion	\$3.6 billion	NA	China	Public Company Segment	Generics - China	Small Molecules	Generics
89	207	NA	Biohaven	\$9.7 billion	\$190 million	-\$720 million	New York Area, US	Public Company	Branded Pharma	Small Molecules	Neurology
90	113	97	Cipla	\$9.6 billion	\$2.8 billion	\$605 million	Mumbai, India	Public Company	Generics - INN	Small Molecules	Broad
91	589	509	Intellia Therapeutics	\$9.5 billion	\$27 million	-\$223 million	Boston Area, US	Public Company	Biotechnology	Gene Editing	Rare Disease
92	140	69	Huadong Medicine	\$9.5 billion	\$5.3 billion	\$487 million	Zhejiang Province, China	Public Company	Generics - China	Small Molecules	Endocrinology
93	105	121	Sobi	\$9.4 billion	\$1.7 billion	\$659 million	Sweden	Public Company	Branded Pharma	Small Molecules	Rare Disease
94	84	95	Grupo Insud	\$9.3 billion	\$1.8 billion	NA	Madrid, Spain	Private Company	Branded Pharma	Small Molecules	Womens Health
95	133	146	Intas Pharma	\$9.2 billion	\$2.2 billion	\$198.6 million	Ahmedabad, India	Private Company	Generics - Branded	Small Molecules	Broad
96	82	48	Tianjin Pharma	\$8.9 billion	\$3.3 billion	NA	Tianjin Province	Private Company	Generics - China	Small Molecules	Broad
97	91	75	Vifor Pharma	\$8.9 billion	\$1.9 billion	\$556 million	Zurich, Switzerland	Public Company	Branded Pharma	Small Molecules	Renal
98	92	92	Bracco	\$8.6 billion	\$1.6 billion	NA	Milan, Italy	Private Company	Branded Pharma	Radiopharmaceuticals	Oncology
99	86	78	LEO Pharma	\$8.6 billion	\$1.6 billion	\$83 million	Copenhagen, Denmark	Private Company	Branded Pharma	Small Molecules	Dermatology
100	95	61	lpsen	\$8.6 billion	\$3.3 billion	\$1.1 billion	Paris, France	Public Company	Branded Pharma	Small Molecules	Oncology

Pharma 1000: Ranks 101 to 125

Value Rank											
2021	2020	2018	Name	Value Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
101	101	88	Neurocrine	\$8.5 billion	\$1.1 billion	\$226 million	San Diego, US	Public Company	Branded Pharma	Small Molecules	Neurology
102	127	230	Ascendis Pharma	\$8.5 billion	\$6 million	-\$487 million	Copenhagen, Denmark	Public Company	Biotechnology	Small Molecules	Endocrinology
103	110	46	Kangmei Pharma	\$8.5 billion	\$702 million	-\$3.5 billion	Guangdong Province, China	Public Company	Generics - China	Naturals	Broad
104	74	132	Hualan Bio	\$8.4 billion	\$824 million	\$345 million	Henan Province, China	Public Company	Biosimilars	Vaccines	Vaccines
105	122	83	Endo International	\$8.2 billion	\$3 billion	\$847 million	New York Area, US	Public Company	Generics - INN	Small Molecules	Broad
106	155	63	Aspen Pharmacare	\$8.1 billion	\$2.6 billion	\$657 million	South Africa	Public Company	Generics - Branded	Small Molecules	Broad
107	109	134	Hikma	\$8 billion	\$2.4 billion	\$726 million	London, United Kingdom	Public Company	Generics - INN	Small Molecules	Broad
108	89	93	Roemmers	\$8 billion	\$3 billion	NA	Argentina	Private Company	Generics - Branded	Small Molecules	Broad
109	246	517	Arrowhead Pharma	\$7.9 billion	\$108 million	-\$127 million	Los Angeles, US	Public Company	Biotechnology	Nucleic Acids	Virology
110	88	87	Grünenthal	\$7.9 billion	\$1.5 billion	\$395 million	Rhine Area, Germany	Private Company	Branded Pharma	Small Molecules	Pain
111	106	43	CR Pharma Rx Segment	\$7.9 billion	\$4.2 billion	NA	Hong Kong	Public Company Segment	Generics - China	Naturals	Broad
112	114	308	Serum Institute of India	\$7.8 billion	\$862 million	\$431 million	Mumbai, India	Private Company	Biosimilars	Vaccines	Vaccines
113	144	214	King-Friend Bio	\$7.7 billion	\$549 million	\$200 million	Jiangsu Province, China	Public Company	Biosimilars	Small Molecules	Hospital
114	98	326	Harbin Pharma	\$7.7 billion	\$2.9 billion	NA	Heilongjiang Province, China	Private Company	Generics - China	Small Molecules	Broad
115	NA	NA	Gland Pharma	\$7.7 billion	\$537 million	\$189 million	Hyderabad, India	Public Company	Generics - INN	Small Molecules	Hospital
116	251	NA	Bridgebio Pharma	\$7.7 billion	\$57 million	NA	Bay Area, US	Public Company	Biotechnology	Small Molecules	Rare Disease
117	173	159	Dechra Pharma	\$7.5 billion	\$840 million	\$170 million	Northern UK	Public Company	Animal Health	Small Molecules	Animal Health
118	100	99	Ceva Santé Animale	\$7.4 billion	\$1.4 billion	NA	Rhine Area, Germany	Private Company	Animal Health	Small Molecules	Animal Health
119	97	125	Sarepta Therapeutics	\$7.3 billion	\$646 million	-\$479 million	Boston Area, US	Public Company	Branded Pharma	Gene Therapy	Neurology
120	141	457	Mirati Therapeutics	\$7.3 billion	\$13 million	-\$491 million	San Diego, US	Public Company	Biotechnology	Small Molecules	Oncology
121	104	136	Humanwell Healthcare	\$7.2 billion	\$3.2 billion	\$514 million	Hubei Province, China	Public Company	Generics - China	Small Molecules	Broad
122	142	110	Zydus Cadila	\$7.2 billion	\$2.1 billion	\$471 million	Ahmedabad, India	Public Company	Generics - INN	Small Molecules	Broad
123	117	NA	CanSino Biologics	\$7.1 billion	\$482 million	\$137 million	Tianjin Province	Public Company	Branded Pharma	Vaccines	Vaccines
124	621	79	Beijing Tong Ren Tang	\$7.1 billion	\$2.2 billion	\$419 million	Hebei Province, China	Public Company	Generics - China	Naturals	Broad
125	124	178	Torrent Pharma	\$6.9 billion	\$1.1 billion	\$334 million	Ahmedabad, India	Public Company	Generics - INN	Small Molecules	Broad

Pharma 1000: Ranks 126 to 150

Va	alue Rai	nk				D (1)					
2021	2020	2018	3 Name	Value Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
126	160	488	Zai Lab	\$6.7 billion	\$87 million	-\$564 million	Shanghai, China	Public Company	Branded Pharma	Small Molecules	Oncology
127	115	120	Baxter Pharma	\$6.7 billion	\$2.5 billion	NA	Chicago Area	Public Company Segment	Generics - INN	Small Molecules	Hospital
128	107	157	Hetero Drugs	\$6.7 billion	\$2.5 billion	NA	Hyderabad, India	Private Company	Generics - INN	Small Molecules	Broad
129	116	57	Shanghai RAAS	\$6.6 billion	\$585 million	\$218 million	Shanghai, China	Public Company	Branded Pharma	Blood Products	Blood Products
130	119	106	Mitsubishi Tanabe	\$6.5 billion	\$3.5 billion	NA	Osaka, Japan	Public Company Segment	Branded Pharma	Biologics	Immunology
131	262	168	United Therapeutics	\$6.4 billion	\$1.7 billion	\$625 million	Washington DC Area, US	Public Company	Branded Pharma	Small Molecules	Rare Disease
132	85	NA	Adimab	\$6.4 billion	NA	\$500 million	US, Other	Private Company	Royalty Company	Biologics	Broad
133	87	NA	SK Biopharma	\$6.3 billion	\$163 million	-\$83 million	Seoul, Korea	Public Company	Branded Pharma	Small Molecules	Neurology
134	120	64	Lundbeck	\$6.2 billion	\$2.7 billion	\$597 million	Copenhagen, Denmark	Public Company	Branded Pharma	Small Molecules	Neurology
135	129	129	Angelini	\$6.2 billion	\$1.2 billion	NA	Rome, Italy	Private Company	Branded Pharma	Small Molecules	Pain
136	452	NA	Cerevel Therapeutics	\$6.2 billion	NA	-\$171 million	Boston Area, US	Public Company	Biotechnology	Small Molecules	Neurology
137	118	174	Alfasigma	\$6.1 billion	\$1.2 billion	NA	Florence, Italy	Private Company	Branded Pharma	Small Molecules	Gastroenterology
138	138	143	Orion	\$6.1 billion	\$1.2 billion	\$324 million	Finland	Public Company	Branded Pharma	Small Molecules	Neurology
139	195	NA	Apeloa Pharma	\$6.1 billion	\$1.3 billion	\$190 million	Zhejiang Province, China	Public Company	Generics - China	Naturals	Cardiometabolic
140	108	107	Merz	\$6.1 billion	\$1.1 billion	NA	Hessen, Germany	Private Company	Branded Pharma	Small Molecules	Dermatology
141	139	116	Lupin	\$6 billion	\$2.2 billion	\$388 million	Mumbai, India	Public Company	Generics - INN	Small Molecules	Broad
142	137	124	Dainippon Sumitomo	\$6 billion	\$4.9 billion	\$767 million	Osaka, Japan	Public Company	Branded Pharma	Small Molecules	Neurology
143	121	NA	Tiantan Biological	\$6 billion	\$563 million	\$186 million	Beijing, China	Public Company	Branded Pharma	Blood Products	Various
144	123	119	Biocon	\$5.9 billion	\$979 million	\$227 million	Bangalore, India	Public Company	Biosimilars	Small Molecules	Broad
145	171	171	Alkem	\$5.9 billion	\$1.3 billion	\$267 million	Mumbai, India	Public Company	Generics - INN	Small Molecules	Broad
146	94	NA	Junshi Biosciences	\$5.9 billion	\$512 million	-\$131 million	Jiangsu Province, China	Public Company	Branded Pharma	Biologics	Oncology
147	211	NA	Legend Biotech	\$5.8 billion	\$89 million	-\$283 million	Jiangsu Province, China	Public Company	Biotechnology	Cell Therapy	Oncology
148	200	217	Halozyme	\$5.8 billion	\$463 million	\$298 million	San Diego, US	Public Company	Royalty Company	Biologics	Oncology
149	233	NA	Dermapharm	\$5.7 billion	\$1 billion	\$247 million	Munich Area, Germany	Public Company	Generics - Branded	Small Molecules	Broad
150	NA	NA	Remegen	\$5.6 billion	NA	-\$135 million	Shandong Province, China	Public Company	Biotechnology	Biologics	Nephrology

Pharma 1000: Ranks 151 to 175

Va	alue Rai	nk			5 (1)					
2021	2020	2018 Name	Value Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
151	130	117 Schwabe	\$5.6 billion	\$1.1 billion	NA	Hessen, Germany	Private Company	Branded Pharma	Naturals	Neurology
152	99	294 CureVac	\$5.5 billion	\$60 million	-\$156 million	Hessen, Germany	Public Company	Biotechnology	Nucleic Acids	Oncology
153	214	195 Blueprint Medicines	\$5.5 billion	\$107 million	-\$405 million	Boston Area, US	Public Company	Branded Pharma	Small Molecules	Oncology
154	355	NA Kodiak Sciences	\$5.5 billion	NA	-\$189 million	Bay Area, US	Public Company	Biotechnology	Biologics	Ophthalmology
157	225	330 Denali Therapeutics	\$5.4 billion	\$353 million	\$34 million	Bay Area, US	Public Company	Biotechnology	Small Molecules	Neurology
155	128	109 Santen	\$5.4 billion	\$2.3 billion	\$644 million	Osaka, Japan	Public Company	Branded Pharma	Small Molecules	ophthalmology
156	161	NA Youcare Pharma	\$5.4 billion	\$1.5 billion	\$110 million	Beijing, China	Public Company	Generics - China	Small Molecules	Broad
158	125	152 Apotex	\$5.4 billion	\$2 billion	NA	Toronto Area, Canada	Private Company	Generics - INN	Small Molecules	Broad
159	131	118 Aurobindo	\$5.4 billion	\$3.3 billion	\$719 million	Hyderabad, India	Public Company	Generics - INN	Small Molecules	Broad
160	194	NA Grupo Bagó	\$5.4 billion	\$2 billion	NA	Argentina	Private Company	Generics - Branded	Small Molecules	Broad
161	470	NA Beam Therapeutics	\$5.4 billion	NA	-\$332 million	Boston Area, US	Public Company	Biotechnology	Gene Therapy	Rare Disease
162	112	112 Huahai Pharma	\$5.3 billion	\$964 million	\$175 million	Zhejiang Province, China	Public Company	Generics - China	Small Molecules	Broad
163	276	656 Fate Therapeutics	\$5.3 billion	\$55 million	-\$177 million	San Diego, US	Public Company	Biotechnology	Cell Therapy	Oncology
164	135	241 Aché Laboratórios	\$5.3 billion	\$1 billion	NA	Sao Paolo Brazil	Private Company	Branded Pharma	Small Molecules	Broad
165	136	252 Unilab	\$5.3 billion	\$1 billion	NA	Philippines	Private Company	Generics - Branded	Small Molecules	Broad
166	102	NA Gan & Lee Pharma	\$5.2 billion	\$570 million	\$248 million	Beijing, China	Public Company	Biosimilars	Biologics	Diabetes Care
167	149	82 Guangzhou Baiyunshar	n \$5.2 billion	\$11 billion	\$594 million	Guangdong Province, China	Public Company	Biosimilars	Biologics	Broad
168	209	173 Gedeon Richter	\$5.2 billion	\$2 billion	\$556 million	Hungary	Public Company	Branded Pharma	Small Molecules	Womens Health
169	216	304 ALK	\$5.2 billion	\$582 million	\$52 million	Copenhagen, Denmark	Public Company	Branded Pharma	Biologics	Allergy
170	172	148 Kalbe	\$5.1 billion	\$1.8 billion	\$314 million	Indonesia	Public Company	Generics - Branded	Small Molecules	Broad
171	163	147 Nippon Shinyaku	\$5 billion	\$1.2 billion	\$348 million	Tokyo, Japan	Public Company	Branded Pharma	Small Molecules	Hematology
172	228	250 Genus	\$5 billion	\$793 million	\$113 million	London, United Kingdom	Public Company	Animal Health	Small Molecules	Animal Health
173	242	NA Macleods Pharma	\$4.9 billion	\$992 million	\$322 million	Mumbai, India	Private Company	Generics - Branded	Small Molecules	Generics
174	NA	NA Chengda Biotechnology	y \$4.8 billion	\$306 million	\$161 million	Liaoning Province, China	Public Company	Branded Pharma	Vaccines	Vaccines
175	189	216 Ultragenyx	\$4.8 billion	\$360 million	-\$362 million	Bay Area, US	Public Company	Branded Pharma	Small Molecules	Rare Disease

Pharma 1000: Ranks 176 to 200

Va	alue Rai	nk			D ():					
2021	2020	2018 Name	Value Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
176	134	115 Exelixis	\$4.6 billion	\$1.3 billion	\$211 million	Bay Area, US	Public Company	Branded Pharma	Small Molecules	Oncology
177	289	98 Alkermes	\$4.6 billion	\$1.1 billion	\$15 million	Boston Area, US	Public Company	Branded Pharma	Small Molecules	Psychiatry
178	132	150 Betta Pharm	\$5 billion	\$324 million	\$89 million	Zhejiang Province, China	Public Company	Branded Pharma	Small Molecules	Oncology
179	148	NA Green Valley Pharma	\$4.8 billion	\$900 million	NA	Shanghai, China	Private Company	Branded Pharma	Small Molecules	CNS
180	162	105 Salubris Pharma	\$4.7 billion	\$433 million	\$107 million	Guangdong Province, China	Public Company	Generics - China	Small Molecules	Broad
181	166	236 CRISPR Therapeutics	\$4.9 billion	\$902 million	\$426 million	Zurich, Switzerland	Public Company	Biotechnology	Gene Editing	Rare Disease
182	188	541 CHEPLAPHARM	\$4.5 billion	\$854 million	\$327.5 million	Germany, Other	Private Company	Generics - Branded	Small Molecules	Broad
183	215	NA Allakos	\$4.6 billion	NA	\$-218 million	Bay Area, US	Public Company	Biotechnology	Biologics	Respiratory
184	178	NA Samsung Bioepis	\$4.4 billion	\$850 million	NA	South Korea	Private Company	Biosimilars	Biologics	Immunology
185	175	155 Chi-Med	\$4.3 billion	\$279 million	\$-256 million	Hong Kong	Public Company	Biotechnology	Small Molecules	Oncology
186	143	151 Kedrion	\$4.3 billion	\$816 million	\$195.8 million	Florence, Italy	Private Company	Branded Pharma	Blood Products	Blood Products
187	157	162 Zambon	\$4.3 billion	\$813 million	NA	Milan, Italy	Private Company	Branded Pharma	Small Molecules	Respiratory
188	271	NA BIOCAD	\$4.2 billion	\$461 million	NA	Russia	Private Company	Biosimilars	Biologics	Broad
189	284	442 TG Therapeutics	\$4.1 billion	\$4 million	\$-338 million	New York Area, US	Public Company	Branded Pharma	Biologics	Oncology
190	213	NA Barakat Pharmaceutical	\$4.2 billion	\$1.6 billion	NA	Iran	Private Company	Generics - Branded	Small Molecules	Generics
191	184	189 Yiling Pharma	\$4.2 billion	\$1.6 billion	\$299 million	Hebei Province, China	Public Company	Generics - China	Naturals	Broad
192	156	145 Italfarmaco	\$4.2 billion	\$799 million	NA	Milan, Italy	Private Company	Branded Pharma	Small Molecules	Cardiometabolic
193	179	283 Wolwo Pharma	\$4.4 billion	\$119 million	\$54 million	Zhejiang Province, China	Public Company	Branded Pharma	Biologics	Allergy
194	204	139 Hypera	\$4.1 billion	\$1 billion	\$310 million	Sao Paolo Brazil	Public Company	Generics - Branded	Small Molecules	Broad
195	158	163 Maruho	\$4.1 billion	\$783 million	NA	Osaka, Japan	Private Company	Branded Pharma	Small Molecules	Dermatology
196	361	NA Karuna Therapeutics	\$4 billion	NA	\$-138 million	Boston Area, US	Public Company	Biotechnology	Small Molecules	Neurology
197	NA	NA Changchun BCHT Bio	\$4 billion	\$202 million	\$63 million	Jilin Province, China	Public Company	Branded Pharma	Vaccines	Virology
198	146	130 Ionis	\$4.2 billion	\$661 million	\$-202 million	San Diego, US	Public Company	Biotechnology	Nucleic Acids	Rare Disease
199	201	140 IBSA	\$4 billion	\$760 million	NA	Lugano, Switzerland	Private Company	Branded Pharma	Biologics	Women's Health
200	185	263 NCPC (North China Pharma)	\$4.1 billion	\$1.6 billion	\$166 million	Hebei Province, China	Public Company	Generics - China	Small Molecules	Broad

Pharma 1000: Ranks 201 to 225

Va	Value Rank			Value		D fit					Lond Thomas and a
2021	2020	2018	Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
201	320	NA	I-Mab	\$4 billion	\$242 million	-\$27 million	Jiangsu Province, China	Public Company	Biotechnology	Biologics	Oncology
202	96	NA	Roivant Sciences	\$4 billion	NA	NA	New York Area, US	Private Company	Biotechnology	Small Molecules	Immunology
203	325	284	Virbac	\$4 billion	\$1.2 billion	\$215 million	France, Other	Public Company	Animal Health	Small Molecules	Animal Health
204	451	NA	Nestlé Pharma Operations	\$3.9 billion	\$288 million	NA	Geneva, Switzerland	Public Company Segment	Branded Pharma	Small Molecules	Gastroenterology
205	399	709	Aurinia Pharma	\$3.8 billion	\$58 million	-\$146 million	Vancouver, Canada	Public Company	Biotechnology	Small Molecules	Rheumatology
206	202	NA	Celltrion Pharm	\$3.8 billion	\$244 million	\$38 million	South Korea	Public Company	Branded Pharma	Biologics	Broad
207	255	305	Insmed	\$3.7 billion	\$174 million	-\$355 million	New York Area, US	Public Company	Branded Pharma	Small Molecules	Respiratory
208	176	NA	Laboratoires Théa	\$3.7 billion	\$702 million	NA	France, Other	Private Company	Branded Pharma	Small Molecules	ophthalmology
209	294	NA	Akeso	\$3.7 billion	\$20 million	-\$181 million	Guangdong Province, China	Public Company	Biotechnology	Biologics	Oncology
210	279	113	China Medical System	\$3.7 billion	\$1.2 billion	\$505 million	Guangdong Province, China	Public Company	Generics - China	Small Molecules	Broad
211	168	142	Livzon	\$3.7 billion	\$1.9 billion	\$352 million	Guangdong Province, China	Public Company	Generics - China	Small Molecules	Broad
212	180	91	Dongbao Pharma	\$3.7 billion	\$491 million	\$216 million	Jilin Province, China	Public Company	Biosimilars	Biologics	Endocrinology
213	303	NA	Shuanglin Biopharma	\$3.6 billion	\$268 million	\$68 million	Guangdong Province, China	Public Company	Branded Pharma	Small Molecules	Blood Products
214	346	426	ROVI	\$3.6 billion	\$615 million	\$145 million	Madrid, Spain	Public Company	Branded Pharma	Small Molecules	Hospital
215	NA	NA	Sinocelltech Group	\$3.6 billion	\$2 million	-\$134 million	Beijing, China	Public Company	Biotechnology	Vaccines	Vaccines
216	273	255	KrKa	\$3.6 billion	\$1.8 billion	\$566 million	Slovenia	Public Company	Generics - Branded	Small Molecules	Broad
217	205	342	lpca	\$3.6 billion	\$733 million	\$179 million	Mumbai, India	Public Company	Generics - Branded	Small Molecules	Broad
218	193	202	Pharmstandard	\$3.6 billion	\$1.3 billion	NA	Russia	Private Company	Generics - Branded	Small Molecules	Broad
219	250	NA	China Biologic Products	\$3.6 billion	NA	\$NA	Beijing, China	Public Company	Branded Pharma	Blood Products	Hospital
220	676	889	ImmunityBio	\$3.5 billion	\$2 million	-\$185 million	Los Angeles, US	Public Company	Biotechnology	Cell Therapy	Oncology
221	553	NA	Zentalis Pharma	\$3.5 billion	NA	-\$180 million	New York Area, US	Public Company	Biotechnology	Small Molecules	Oncology
222	212	149	Hanmi Pharm	\$3.5 billion	\$968 million	\$115 million	South Korea	Public Company	Generics - Branded	Small Molecules	Broad
223	192	NA	Orifarm	\$3.4 billion	\$1.3 billion	NA	Copenhagen, Denmark	Private Company	Generics - Branded	Small Molecules	Broad
224	234	NA	Schrodinger	\$3.4 billion	\$121 million	-\$83 million	New York Area, US	Public Company	Biotechnology	Small Molecules	Broad
225	165	164	Yifan Pharma	\$3.4 billion	\$722 million	\$65 million	Zhejiang Province, China	Public Company	Biosimilars	Biologics	Broad

Pharma 1000: Ranks 226 to 250

Va	alue Ra	nk		Value		D . (')					Land Thomas Co
2021	2020	2018	Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
226	164	137	Grupo Ferrer	\$3.4 billion	\$652 million	NA	Barcelona, Spain	Private Company	Branded Pharma	Small Molecules	Cardiometabolic
227	186	220	Abdi Ibrahim	\$3.4 billion	\$650 million	NA	Turkey	Private Company	Branded Pharma	Small Molecules	Broad
228	199	156	Hisun Pharma	\$3.4 billion	\$1.9 billion	\$265 million	Zhejiang Province, China	Public Company	Generics - China	Small Molecules	Broad
229	181	127	Buchang Pharma	\$3.4 billion	\$2.5 billion	\$376 million	Shandong Province, China	Public Company	Generics - China	Naturals	Broad
230	197	249	Idorsia	\$3.4 billion	\$39 million	-\$522 million	Basel, Switzerland	public Company	Biotechnology	Small Molecules	Respiratory
231	177	407	lovance	\$3.4 billion	NA	-\$310 million	Bay Area, US	Public Company	Biotechnology	Cell Therapy	Oncology
232	1255	NA	Cassava Sciences	\$3.4 billion	NA	-\$13 million	Texas, US	Public Company	Biotechnology	Small Molecules	Neurology
241	232	NA	Vir Biotechnology	\$3.3 billion	\$183 million	-\$254 million	Bay Area, US	Public Company	Biotechnology	Small Molecules	Virology
233	287	370	Kowa Pharma Segment	\$3.3 billion	\$1.8 billion	NA	Tokyo, Japan	Private Company	Branded Pharma	Small Molecules	Cardiometabolic
234	633	NA	Arvinas	\$3.3 billion	\$23 million	-\$180 million	New York Area, US	Public Company	Biotechnology	Nucleic Acids	Oncology
235	734	690	Sinovac Life Sciences	\$3.3 billion	\$511 million	\$38.4 million	Beijing, China	Private Company	Biosimilars	Vaccines	Vaccines
236	223	237	Amicus Therapeutics	\$3.3 billion	\$282 million	-\$198 million	New York Area, US	Public Company	Branded Pharma	Small Molecules	Rare Disease
237	208	235	Haisco	\$3.3 billion	\$445 million	-\$25 million	Sichuan Province, China	Public Company	Generics - China	Small Molecules	Broad
238	539	NA	Sana Biotechnology, Inc.	\$3.2 billion	NA	-\$262 million	Seattle, US	Public Company	Biotechnology	Cell Therapy	Broad
239	191	427	Meiji Pharma Business	\$3.2 billion	\$1.8 billion	NA	Tokyo, Japan	Public Company Segment	Branded Pharma	Small Molecules	Anti-Infectives
240	409	778	Cytokinetics	\$3.2 billion	\$22 million	-\$199 million	Bay Area, US	Public Company	Biotechnology	Small Molecules	Neurology
242	182	141	Megalabs	\$3.2 billion	\$1.2 billion	NA	Uruguay	Private Company	Generics - Branded	Small Molecules	Broad
243	229	NA	Amneal	\$3.2 billion	\$2.1 billion	\$433 million	New York Area, US	Public Company	Generics - INN	Small Molecules	Broad
244	240	181	AnkeBio	\$3.2 billion	\$325 million	\$93 million	Anhui Province, China	Public Company	Biosimilars	Biologics	Broad
246	406	NA	SpringWorks	\$3.2 billion	\$35 million	-\$106 million	New York Area, US	Public Company	Biotechnology	Small Molecules	Oncology
245	167	133	PeptiDream	\$3.1 billion	\$103 million	\$65 million	Tokyo, Japan	Public Company	Biotechnology	Peptides	Virology
247	281	300	Mankind Pharma	\$3.1 billion	\$695 million	NA	Delhi, India	Private Company	Generics - Branded	Small Molecules	Broad
248	210	NA	Relay Therapeutics	\$3.1 billion	\$84 million	-\$99 million	Boston Area, US	Public Company	Biotechnology	Small Molecules	Oncology
249	349	539	Intra-Cellular Therapies	\$3.1 billion	\$56 million	-\$239 million	New York Area, US	Public Company	Branded Pharma	Small Molecules	CNS
250	221	175	ROHTO	\$3.1 billion	\$1.7 billion	\$274 million	Osaka, Japan	Public Company	Branded Pharma	Small Molecules	Ophthalmology

Pharma 1000: Ranks 251 to 275

Va	alue Rai	nk		Value		D (*)					Land The control Co
2021	2020	2018	3 Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
251	241	266	Yuhan Corporation	\$3.1 billion	\$1.5 billion	\$126 million	South Korea	Public Company	Generics - Branded	Small Molecules	Broad
252	203	NA	neuraxpharm	\$3.1 billion	\$585 million	NA	Rhine Area, Germany	Private Company	Branded Pharma	Small Molecules	CNS
253	277	531	Reata Pharma	\$3.1 billion	\$8 million	-\$222 million	Texas, US	Public Company	Biotechnology	Small Molecules	Renal
254	NA	NA	Brii Biosciences Limited	\$3.1 billion	\$17 million	-\$121 million	Beijing, China	Public Company	Biotechnology	Small Molecules	Virology
255	218	312	JCR	\$3 billion	\$426 million	\$202 million	Japan, Other	Public Company	Branded Pharma	Biologics	Endocrinology
256	198	858	Oneness Biotech	\$3 billion	\$2 million	-\$24 million	Taiwan	Public Company	Biotechnology	Small Molecules	Wound Care
257	170	86	Tasly Pharma	\$3 billion	\$1.2 billion	\$233 million	Tianjin Province	Public Company	Generics - China	Naturals	Broad
258	78	NA	Biosplice Therapeutics	\$3 billion	NA	NA	San Diego, US	Private Company	Biotechnology	Small Molecules	Bone & Osteo
259	265	303	Arena Pharma	\$3 billion	NA	-\$532 million	San Diego, US	Public Company	Biotechnology	Small Molecules	Gastroenterology
260	257	218	GC Pharma	\$2.9 billion	\$1.3 billion	\$85 million	South Korea	Public Company	Branded Pharma	Vaccines	Vaccines
261	248	NA	Pars Darou	\$2.9 billion	\$1.1 billion	NA	Iran	Private Company	Generics - Branded	Small Molecules	Broad
262	227	NA	Zentiva	\$2.9 billion	\$957 million	NA	Czech Republic	Private Company	Generics - Branded	Small Molecules	Broad
263	438	NA	Kymera	\$2.9 billion	\$65 million	-\$57 million	Boston Area, US	Public Company	Biotechnology	Nucleic Acids	Immunology
264	243	805	PROBIOMED	\$2.9 billion	\$317 million	NA	Mexico	Private Company	Biosimilars	Small Molecules	Broad
265	196	213	Polpharma	\$2.9 billion	\$1.1 billion	NA	Poland	Private Company	Generics - Branded	Small Molecules	Broad
266	344	478	Haohai Biotech	\$2.9 billion	NA	\$68 million	Shanghai, China	Public Company	Biosimilars	Biologics	Broad
267	305	246	Almirall	\$2.9 billion	\$960 million	\$248 million	Barcelona, Spain	Public Company	Branded Pharma	Small Molecules	Dermatology
268	256	198	Asahi Kasei Pharma	\$2.9 billion	\$604 million	NA	Tokyo, Japan	Public Company Segment	Branded Pharma	Small Molecules	Hospital
269	226	273	Kyoritsu Seiyaku	\$2.9 billion	\$545 million	NA	Tokyo, Japan	Private Company	Animal Health	Small Molecules	Animal Health
270	286	138	China TCM Holdings	\$2.9 billion	\$2.5 billion	\$526 million	Hong Kong	Public Company	Generics - China	Naturals	Broad
271	310	209	OPKO Health	\$2.9 billion	\$1.9 billion	\$179 million	Florida, US	Public Company	Branded Pharma	Small Molecules	Renal
272	217	NA	LG Life Sciences	\$2.9 billion	\$540 million	NA	South Korea	Public Company Segment	Generics - Branded	Small Molecules	Broad
273	206	131	Esteve	\$2.8 billion	\$531 million	NA	Barcelona, Spain	Private Company	Branded Pharma	Small Molecules	Pain
274	358	371	Apellis Pharma	\$2.8 billion	\$251 million	-\$317 million	US, Other	Public Company	Biotechnology	Small Molecules	Rare Disease
275	222	279	Besins	\$2.8 billion	\$527 million	NA	Monaco	Private Company	Branded Pharma	Small Molecules	Womens Health

Pharma 1000: Ranks 276 to 300

Va	Value Rank		Value		D . (1)					1
2021	2020	2018 Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
276	259	NA medac gmbh	\$2.8 billion	\$524 million	NA	Germany, Other	Private Company	Branded Pharma	Small Molecules	Oncology
277	239	253 Norgine	\$2.8 billion	\$524 million	NA	Netherlands	Private Company	Branded Pharma	Small Molecules	Gastroenterology
278	219	256 Eurofarma	\$2.7 billion	\$1 billion	NA	Sao Paolo Brazil	Private Company	Generics - Branded	Small Molecules	Broad
279	244	288 Dr. Falk Pharma	\$2.7 billion	\$521 million	NA	Hessen, Germany	Private Company	Branded Pharma	Small Molecules	Gastroenterology
280	169	727 ALTEOGEN	\$2.7 billion	\$33 million	-\$12 million	South Korea	Public Company	Biosimilars	Biologics	Endocrinology
281	159	269 ACADIA Pharma	\$2.7 billion	\$463 million	-\$207 million	San Diego, US	Public Company	Branded Pharma	Small Molecules	Neurology
282	424	NA Innocare	\$2.7 billion	\$16 million	-\$85 million	Hong Kong	Public Company	Biotechnology	Small Molecules	Oncology
283	485	NA Alvotech	\$2.7 billion	NA	NA	Iceland	Private Company	Biosimilars	Biologics	Broad
284	230	257 China Grand Pharma	\$2.7 billion	\$987 million	\$300 million	Hong Kong	Public Company	Generics - China	Small Molecules	Broad
285	268	265 Prasco	\$2.7 billion	\$1 billion	NA	US, Other	Private Company	Generics - Branded	Small Molecules	Broad
286	292	177 AoDong Medicine	\$2.7 billion	\$347 million	\$7.6 million	Jilin Province, China	Public Company	Generics - China	Small Molecules	Broad
287	235	315 Dompé	\$2.7 billion	\$503 million	NA	Milan, Italy	Private Company	Branded Pharma	Biologics	Rare Disease
288	NA	NA Everest Medicines	\$2.7 billion	NA	-\$125 million	Jiangsu Province, China	Public Company	Biotechnology	Biologics	Oncology
289	789	NA Recursion Pharmaceuticals	\$2.6 billion	\$9 million	-\$113 million	Utah, US	Public Company	Biotechnology	Small Molecules	Rare Disease
290	404	576 Bavarian Nordic	\$2.6 billion	\$270 million	-\$24 million	Copenhagen, Denmark	Public Company	Branded Pharma	Vaccines	Oncology
291	249	NA China Meheco Group	\$2.6 billion	\$5.6 billion	\$316 million	Beijing, China	Public Company	Generics - China	Small Molecules	Broad
292	314	227 Boya Bio	\$2.6 billion	\$440 million	\$74 million	Jiangxi Province, China	Public Company	Branded Pharma	Blood Products	Broad
293	253	347 PTC Therapeutics	\$2.6 billion	\$492 million	-\$289 million	New York Area, US	Public Company	Branded Pharma	Small Molecules	Rare Disease
294	471	161 Ligand	\$2.6 billion	\$252 million	\$78 million	San Diego, US	Public Company	Royalty Company	Small Molecules	Broad
295	309	NA Emcure	\$2.6 billion	\$808 million	\$9.4 million	Mumbai, India	Private Company	Generics - INN	Small Molecules	Broad
296	187	182 Jinyu Bio-Tech	\$2.6 billion	\$281 million	\$108 million	Mongolia	Public Company	Animal Health	Small Molecules	Animal Health
297	245	666 ChemoCentryx	\$2.6 billion	\$22 million	-\$120 million	Bay Area, US	Public Company	Biotechnology	Small Molecules	Renal
298	267	196 Simcere Pharma	\$2.6 billion	\$806 million	\$84 million	Jiangsu Province, China	Public Company	Generics - China	Small Molecules	Broad
299	NA	NA Erasca, Inc.	\$2.6 billion	NA	-\$62 million	San Diego, US	Public Company	Biotechnology	Small Molecules	Oncology
300	381	278 ZBD Pharmaceutical	\$2.5 billion	\$672 million	\$117 million	Heilongjiang Province, China	Public Company	Generics - China	Small Molecules	Broad

Pharma 1000: Ranks 301 to 325

Va	alue Rai	nk		Value Estimate		Profit					l and They mounting
2021	2020	2018	S Name	(Nov 5, 2021)	Revenue	(EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
301	313	219	Tsumura	\$2.5 billion	\$1.2 billion	\$259 million	Osaka, Japan	Public Company	Generics - Branded	Naturals	Broad
302	252	179	LFB	\$2.5 billion	\$468 million	NA	Paris, France	Private Company	Branded Pharma	Blood Products	Blood Products
303	375	356	Ajanta Pharma	\$2.5 billion	\$423 million	\$132 million	Mumbai, India	Public Company	Generics - INN	Small Molecules	Broad
304	NA	NA	Imugene Limited	\$2.5 billion	\$5 million	-\$12 million	Australia	Public Company	Biotechnology	Vaccines	Vaccines
305	297	359	Pacira	\$2.4 billion	\$513 million	\$134 million	New York Area, US	Public Company	Branded Pharma	Small Molecules	Hospital
306	238	NA	Shafadarou Investment	\$2.4 billion	\$907 million	NA	Iran	Private Company	Generics - Branded	Small Molecules	Broad
307	275	NA	Harmony Biosciences	\$2.4 billion	\$235 million	\$72 million	Philadelphia Area, US	Public Company	Branded Pharma	Small Molecules	CNS
308	NA	NA	Starry Pharma	\$2.4 billion	\$253 million	\$75 million	Zhejiang Province, China	Public Company	Branded Pharma	Small Molecules	Hospital
309	318	224	Glenmark	\$2.4 billion	\$1.6 billion	\$309 million	Mumbai, India	Public Company	Generics - INN	Small Molecules	Broad
310	NA	NA	Lyell Immunopharma	\$2.4 billion	NA	-\$192 million	Bay Area, US	Public Company	Biotechnology	Cell Therapy	Oncology
311	322	391	Biocodex	\$2.4 billion	\$453 million	NA	Paris, France	Private Company	Branded Pharma	Naturals	Gastroenterology
312	389	318	Biotest / Creat Group	\$2.4 billion	\$601 million	\$1.7 million	Berlin, Germany	Public Company	Branded Pharma	Blood Products	Blood Products
313	NA	NA	Exscientia	\$2.4 billion	\$14 million	-\$51 million	Cambridge and Oxford, UK	Public Company	Biotechnology	Small Molecules	Oncology
314	NA	NA	Green Cross Holdings	\$2.3 billion	\$1.6 billion	\$103 million	South Korea	Public Company	Branded Pharma	Biologics	Blood Products
315	236	90	Luoxin Pharma	\$2.3 billion	\$1.1 billion	\$112 million	Shandong Province, China	Public Company	Generics - China	Small Molecules	Respiratory
316	190	NA	Allogene	\$2.3 billion	NA	-\$234 million	Bay Area, US	Public Company	Biotechnology	Cell Therapy	Oncology
317	328	240	Zhejiang Medicine	\$2.3 billion	\$1.4 billion	\$228 million	Zhejiang Province, China	Public Company	Generics - China	Small Molecules	Broad
318	247	111	Taisho Pharma	\$2.3 billion	\$2.4 billion	\$330 million	Tokyo, Japan	Public Company	Branded Pharma	Small Molecules	Anti-infectives
319	743	604	BioCryst	\$2.3 billion	\$114 million	-\$177 million	North Carolina, US	Public Company	Biotechnology	Small Molecules	Rare Disease
320	274	NA	Chipscreen	\$2.3 billion	\$56 million	-\$9.4 million	Guangdong Province, China	Public Company	Biotechnology	Small Molecules	Oncology
321	NA	NA	Smith & Nephew Bioactives	\$2.3 billion	\$431 million	NA	London, United Kingdom	Public Segment	Branded Pharma	Small Molecules	Wound Care
322	282	226	Sawai	\$2.3 billion	\$1.7 billion	\$384 million	Osaka, Japan	Public Company	Generics - Branded	Small Molecules	Broad
323	260	104	3SBio	\$2.3 billion	\$929 million	\$279 million	Liaoning Province, China	Public Company	Biosimilars	Biologics	Broad
324	269	NA	ADC Therapeutics	\$2.3 billion	\$17 million	-\$276 million	Geneva, Switzerland	Public Company	Biotechnology	Biologics	Oncology
325	NA	NA	Instil Bio	\$2.2 billion	NA	-\$82 million	Texas, US	Public Company	Biotechnology	Cell Therapy	Oncology

Pharma 1000: Ranks 326 to 350

Va	alue Rai	nk		Value		D . (''					1 - 171 2
2021	2020	2018	8 Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
326	147	244	Emergent BioSolutions	\$2.2 billion	\$1.7 billion	\$456 million	Washington DC Area, US	Public Company	Branded Pharma	Vaccines	Biodefense
327	NA	NA	Atai Life Sciences	\$2.2 billion	\$20 million	-\$131 million	Berlin, Germany	Public Company	Biotechnology	Small Molecules	Neurology
328	183	NA	Kanghua Biological	\$2.2 billion	\$156 million	\$73 million	Sichuan Province, China	Public Company	Biosimilars	Vaccines	Vaccines
329	280	176	Biolab Sanus Pharma	\$2.2 billion	\$418 million	NA	Sao Paolo Brazil	Private Company	Biosimilars	Small Molecules	Cardiometabolic
330	285	306	Ethypharm	\$2.2 billion	\$418 million	NA	Paris, France	Private Company	Branded Pharma	Small Molecules	Pain
331	152	126	Kanghong Pharma	\$2.2 billion	\$588 million	-\$91 million	Sichuan Province, China	Public Company	Branded Pharma	Small Molecules	ophthalmology
332	258	NA	BrightGene Bio	\$2.2 billion	\$159 million	\$42 million	Jiangsu Province, China	Public Company	Branded Pharma	Small Molecules	Oncology
333	NA	NA	CARsgen Therapeutics	\$2.2 billion	NA	-\$63 million	Jiangsu Province, China	Public Company	Biotechnology	Cell Therapy	Oncology
334	306	634	Karo Pharma	\$2.2 billion	\$334 million	\$98 million	Sweden	Public Company	Branded Pharma	Small Molecules	ENT
335	476	191	GuangYuYuang	\$2.2 billion	\$158 million	-\$23 million	Shaanxi Province, China	Public Company	Generics - China	Naturals	Broad
336	300	NA	Zelgen Bio	\$2.2 billion	\$15 million	-\$71 million	Anhui Province, China	Public Company	Biotechnology	Small Molecules	Oncology
337	NA	NA	Verve Therapeutics	\$2.2 billion	NA	-\$56 million	Boston Area, US	Public Company	Biotechnology	Gene Editing	Cardiometabolic
338	NA	NA	Curium Pharma	\$2.2 billion	\$410 million	NA	Paris, France	Private Company	Branded Pharma	Radiopharmaceuticals	Oncology
352	1240	780	Prothena	\$2.2 billion	\$200 million	\$76 million	Bay Area, US	Public Company	Biotechnology	Small Molecules	Rare Disease
339	302	158	Luye Pharma	\$2.1 billion	\$856 million	\$202 million	Shandong Province, China	Public Company	Generics - China	Small Molecules	Broad
340	453	NA	Atnahs	\$2.1 billion	\$312 million	NA	London, United Kingdom	Private Company	Generics - Branded	Small Molecules	Cardiometabolic
341	283	NA	Jubilant Pharma Segment	\$2.1 billion	\$791 million	NA	India, Other	Public Company Segment	Generics - Branded	Radiopharmaceuticals	Generics
342	266	103	Alvogen	\$2.1 billion	\$800 million	NA	New York Area, US	Private Company	Generics - Branded	Small Molecules	Broad
344	1508	NA	Azurity Pharma	\$2.1 billion	\$400 million	NA	Colorado, U.S.	Private Company	Branded Pharma	Small Molecules	Pediatrics
343	291	NA	Neopharm Ltd	\$2.1 billion	\$400 million	NA	Israel	Private Company	Branded Pharma	Small Molecules	Broad
345	653	629	Vericel	\$2.1 billion	\$152 million	\$12 million	Boston Area, US	Public Company	Branded Pharma	Cell Therapy	Bone & Osteo
346	NA	NA	Keymed Biosciences	\$2.1 billion	NA	-\$47 million	Sichuan Province, China	Public Company	Biotechnology	Biologics	Dermatology
347	NA	NA	Clover Biopharmaceuticals	\$2.1 billion	NA	-\$46 million	Sichuan Province, China	Public Company	Biotechnology	Vaccines	Vaccines
348	288	348	Alembic	\$2.1 billion	\$723 million	\$174 million	Ahmedabad, India	Public Company	Generics - Branded	Small Molecules	Broad
350	367	192	Ironwood Pharma	\$2.1 billion	\$413 million	\$225 million	Boston Area, US	Public Company	Branded Pharma	Small Molecules	Gastroenterology

Pharma 1000: Ranks 351 to 375

Va	alue Rai	nk		Value :		D ()					
2021	2020	2018	Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
351	445	504	Zhongxin Pharma	\$2.1 billion	\$1.1 billion	\$125 million	Tianjin Province	Public Company	Generics - China	Small Molecules	Broad
352	581	573	Vétoquinol	\$2.1 billion	\$577 million	\$126 million	Paris, France	Public Company	Animal Health	Small Molecules	Animal Health
353	263	270	GBT	\$2.1 billion	\$165 million	-\$250 million	Bay Area, US	Public Company	Branded Pharma	Small Molecules	Hematology
354	145	607	Shin Poong	\$2.1 billion	\$167 million	\$14 million	South Korea	Public Company	Generics - Branded	Small Molecules	Broad
355	343	208	Xinbang Pharma	\$2.1 billion	\$976 million	\$110 million	Guizhou, China	Public Company	Generics - China	Small Molecules	Broad
356	543	518	Lantheus	\$2 billion	\$390 million	\$10.7 million	Boston Area, US	Public Company	Branded Pharma	Radiopharmaceuticals	Cardiometabolic
357	NA	NA	Allist Pharma	\$2 billion	\$76 million	-\$9 million	Jiangsu Province, China	Public Company	Generics - China	Small Molecules	Broad
358	352	358	Micro Labs	\$2 billion	\$583 million	NA	Bangalore, India	Private Company	Generics - Branded	Small Molecules	Broad
359	359	260	Natco	\$2 billion	\$255 million	\$73 million	Hyderabad, India	Public Company	Generics - INN	Small Molecules	Broad
360	293	289	Chase Sun Pharma	\$2 billion	\$1.1 billion	\$154 million	Tianjin Province	Public Company	Generics - China	Naturals	Broad
361	339	200	Nhwa Pharma	\$2 billion	\$602 million	\$158 million	Jiangsu Province, China	Public Company	Generics - China	Small Molecules	CNS
362	362	548	Sorrento Therapeutics	\$2 billion	\$51 million	-\$319 million	San Diego, US	Public Company	Branded Pharma	Biologics	Oncology
363	353	242	Cheezheng Tibetan Med	\$2 billion	\$255 million	\$64 million	Tibet, China	Public Company	Generics - China	Naturals	Broad
364	1082	706	Celldex	\$2 billion	\$9 million	-\$50 million	Texas, US	Public Company	Biotechnology	Cell Therapy	Oncology
365	1081	1183	IVERIC bio	\$2 billion	NA	-\$108 million	New York Area, US	Public Company	Biotechnology	Gene Therapy	ophthalmology
366	NA	NA	Vaccibody	\$1.9 billion	\$218 million	\$174 million	Norway	Public Company	Biotechnology	Vaccines	Oncology
367	417	NA	Laboratorios Sanfer	\$1.9 billion	\$400 million	NA	Mexico	Private Company	Generics - Branded	Small Molecules	Generics
368	1500	NA	Ocugen, Inc.	\$1.9 billion	NA	-\$38 million	Philadelphia Area, US	Public Company	Biotechnology	Gene Therapy	Ophthalmology
369	483	484	Rocket Pharma	\$1.9 billion	NA	-\$179 million	New York Area, US	Public Company	Biotechnology	Gene Therapy	Rare Disease
370	730	NA	Morphic Therapeutics	\$1.9 billion	\$16 million	-\$91 million	Boston Area, US	Public Company	Biotechnology	Small Molecules	Gastroenterology
371	NA	NA	Philip Morris Pharma Segment	\$1.9 billion	NA	NA	Geneva, Switzerland	Private Company	Branded Pharma	Small Molecules	Respiratory
372	807	674	Valneva	\$1.9 billion	\$130 million	-\$137 million	Lyon, France	Public Company	Branded Pharma	Vaccines	Vaccines
373	392	281	Corcept Therapeutics	\$1.9 billion	\$353 million	\$119 million	Bay Area, US	Public Company	Branded Pharma	Small Molecules	Rare Disease
374	435	346	Editas Medicine	\$1.9 billion	\$81 million	-\$165 million	Boston Area, US	Public Company	Biotechnology	Gene Editing	Rare Disease
375	509	NA	Zhendong Pharmaceutical	\$1.9 billion	\$704 million	NA	Shanxi Province, China	Private Company	Generics - Branded	Small Molecules	Oncology

Pharma 1000: Ranks 376 to 400

Va	alue Rai	nk		Value		Durfit					l and Theorem and in
2021	2020	2018	Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
376	396	381	HK Inno.N Corporation	\$1.9 billion	\$474 million	\$92 million	South Korea	Public Company	Branded Pharma	Vaccines	Gastroenterology
377	335	597	Stallergenes Greer	\$1.9 billion	\$356 million	NA	London, United Kingdom	Private Company	Branded Pharma	Biologics	Allergy
378	304	291	Pharmascience	\$1.9 billion	\$700 million	NA	Quebec, Canada	Private Company	Generics - INN	Small Molecules	Broad
379	508	499	Stendhal Pharma	\$1.9 billion	\$700 million	NA	Mexico	Private Company	Generics - Branded	Small Molecules	Broad
380	329	NA	Adamed	\$1.9 billion	\$355 million	NA	Poland	Private Company	Generics - Branded	Small Molecules	Broad
381	528	567	Pharmathen	\$1.9 billion	\$283 million	NA	Netherlands	Private Company	Generics - INN	Small Molecules	Broad
382	345	366	Myovant Sciences	\$1.9 billion	\$145 million	-\$202 million	Bay Area, US	Public Company	Branded Pharma	Small Molecules	Womens Health
383	295	203	Joincare Pharma	\$1.9 billion	\$2.4 billion	\$460 million	Guangdong Province, China	Public Company	Generics - China	Naturals	Broad
384	412	NA	Revolution Medicines	\$1.9 billion	\$40 million	-\$141 million	Bay Area, US	Public Company	Branded Pharma	Small Molecules	Broad
385	312	324	Xianju Pharma	\$1.9 billion	\$683 million	\$139 million	Zhejiang Province, China	Public Company	Generics - China	Small Molecules	Broad
386	317	316	Fidia Farma	\$1.9 billion	\$351 million	NA	Italy, Other	Private Company	Branded Pharma	Small Molecules	Bone & Osteo
387	645	NA	Tolmar / Tecnofarma	\$1.8 billion	\$350 million	NA	Colombia	Private Company	Branded Pharma	Small Molecules	Urology
388	378	419	Hisoar Pharma	\$1.8 billion	\$359 million	\$53 million	Zhejiang Province, China	Public Company	Generics - China	Small Molecules	Broad
389	579	663	Arcus Biosciences	\$1.8 billion	\$93 million	-\$196 million	Bay Area, US	Public Company	Biotechnology	Biologics	Oncology
390	364	212	Shyndec	\$1.8 billion	\$2.2 billion	\$265 million	Shanghai, China	Public Company	Generics - China	Small Molecules	Broad
391	376	344	Xencor	\$1.8 billion	\$179 million	-\$30 million	Los Angeles, US	Public Company	Biotechnology	Biologics	Rheumatology
392	327	456	BIAL	\$1.8 billion	\$342 million	NA	Portugal	Private Company	Branded Pharma	Small Molecules	CNS
393	NA	NA	Olymvax Biopharma	\$1.8 billion	\$63 million	\$12 million	China	Public Company	Branded Pharma	Vaccines	Vaccines
394	301	108	Jumpcan Pharma	\$1.8 billion	\$1.1 billion	\$308 million	Jiangsu Province, China	Public Company	Generics - China	Small Molecules	Broad
395	332	NA	China Animal Husbandry	\$1.8 billion	\$815 million	\$110 million	Beijing, China	Public Company	Animal Health	Small Molecules	Animal Health
396	719	NA	Dr. August Wolff	\$1.8 billion	\$340 million	NA	Germany, Other	Private Company	Branded Pharma	Small Molecules	Dermatology
397	394	332	Towa Pharma	\$1.8 billion	\$1.4 billion	\$292 million	Osaka, Japan	Public Company	Generics - Branded	Small Molecules	Broad
398	NA	NA	Absci Corporation	\$1.8 billion	\$5 million	-\$33 million	Seattle, US	Public Company	Biotechnology	Biologics	Broad
399	326	194	Conba Pharma	\$1.8 billion	\$929 million	\$131 million	Zhejiang Province, China	Public Company	Generics - China	Naturals	Broad
400	363	NA	IGM Biosciences	\$1.8 billion	NA	-\$136 million	Bay Area, US	Public Company	Biotechnology	Biologics	Oncology

Pharma 1000: Ranks 401 to 425

Va	alue Rai	nk		Value		D (1)					1 - 171 17
2021	2020	2018	8 Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
401	614	248	Akorn	\$1.8 billion	\$664 million	NA	Chicago Area	Private Company	Generics - INN	Small Molecules	Broad
402	261	NA	Amoytop Biotech	\$1.8 billion	\$162 million	\$38 million	Fujian Province, China	Public Company	Branded Pharma	Biologics	Hematology
403	NA	NA	LianBio	\$1.8 billion	\$NA	\$NA	Shanghai, China	Public Company	Biotechnology	Small Molecules	Cardiometabolic
404	356	299	Taiji Group	\$1.8 billion	\$1.9 billion	\$24 million	Sichuan Province, China	Public Company	Generics - China	Small Molecules	Broad
405	323	187	Helsinn	\$1.8 billion	\$334 million	NA	Lugano, Switzerland	Private Company	Branded Pharma	Small Molecules	Oncology
406	511	687	Bharat Biotech	\$1.8 billion	\$148 million	NA	Hyderabad, India	Private Company	Biosimilars	Vaccines	Vaccines
407	880	154	Indivior	\$1.7 billion	\$753 million	\$216 million	US, Other	Public Company	Branded Pharma	Small Molecules	Addiction
408	958	NA	Kintor Pharma	\$1.7 billion	NA	-\$82 million	Shanghai, China	Public Company	Biotechnology	Small Molecules	Oncology
409	395	296	Nichi-Iko	\$1.7 billion	\$1.7 billion	-\$19 million	Toyama, Japan	Public Company	Generics - Branded	Small Molecules	Broad
410	340	210	Huvepharma	\$1.7 billion	\$327 million	NA	Bulgaria	Private Company	Animal Health	Small Molecules	Animal Health
411	NA	NA	COMPASS Pathways	\$1.7 billion	NA	-\$52 million	Northern UK	Public Company	Biotechnology	Small Molecules	Neurology
412	428	NA	Sobhan Pharma	\$1.7 billion	\$644 million	NA	Iran	Private Company	Generics - Branded	Small Molecules	Broad
413	576	435	Renhe	\$1.7 billion	\$728 million	\$161 million	Jiangxi Province, China	Public Company	Generics - China	Small Molecules	Broad
414	NA	NA	C4 Therapeutics, Inc.	\$1.7 billion	\$34 million	-\$78 million	Boston Area, US	Public Company	Biotechnology	Small Molecules	Oncology
415	NA	NA	Aristo Pharmaceuticals Pvt Ltd	\$1.7 billion	\$364 million	\$113 million	India	Private Company	Generics - INN	Small Molecules	Generics
416	595	542	Oxford BioMedica	\$1.7 billion	\$186 million	\$41 million	Cambridge and Oxford, UK	Public Company	Biotechnology	Cell Therapy	Neurology
417	290	59	Nektar	\$1.7 billion	\$100 million	-\$430 million	Bay Area, US	Public Company	Biotechnology	Small Molecules	Oncology
418	741	423	Dynavax	\$1.7 billion	\$264 million	\$53 million	Bay Area, US	Public Company	Branded Pharma	Vaccines	Vaccines
419	725	NA	Medigen Vaccine	\$1.7 billion	NA	-\$39 million	Taiwan	Public Company	Biotechnology	Vaccines	Vaccines
420	372	232	Square Pharma	\$1.7 billion	\$578 million	\$198 million	Bangladesh	Public Company	Generics - Branded	Small Molecules	Broad
421	NA	NA	Lancet Pharma	\$1.7 billion	\$624 million	NA	Russia	Private Company	Branded Pharma	Small Molecules	Hospital
422	374	285	Zhongheng Group	\$1.7 billion	\$531 million	\$57 million	Guangxi Province, China	Public Company	Generics - China	Small Molecules	Broad
423	415	NA	ALX Oncology	\$1.6 billion	NA	-\$58 million	Bay Area, US	Public Company	Biotechnology	Biologics	Oncology
424	466	422	Renata	\$1.6 billion	\$308 million	\$86 million	Bangladesh	Public Company	Generics - Branded	Small Molecules	Broad
425	668	NA	Inhibrx	\$1.6 billion	\$11 million	-\$70 million	San Diego, US	Public Company	Biotechnology	Biologics	Oncology

Pharma 1000: Ranks 426 to 450

Value Rank		Value		D (")						
2021	2020	2018 Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
426	497	287 Haw Par Corporation	n \$1.6 billion	\$71 million	\$9.2 million	Singapore	Public Company	Generics - Branded	Small Molecules	CNS
427	393	657 SINQI	\$1.6 billion	\$154 million	\$43 million	Liaoning Province, China	Public Company	Generics - China	Small Molecules	Ophthalmology
428	587	714 J. B. Chemicals	\$1.6 billion	\$286 million	\$75 million	Mumbai, India	Public Company	Generics - Branded	Small Molecules	Broad
429	644	NA The GPO	\$1.6 billion	\$600 million	NA	Thailand	Private Company	Generics - Branded	Small Molecules	Broad
430	334	319 Liomont	\$1.6 billion	\$600 million	NA	Mexico	Private Company	Generics - Branded	Small Molecules	Broad
431	365	382 CK Life Sciences	\$1.6 billion	\$670 million	\$29 million	Hong Kong	Public Company	Generics - China	Small Molecules	Oncology
432	489	280 Innoviva	\$1.6 billion	\$375 million	\$357 million	Bay Area, US	Public Company	Royalty Company	Small Molecules	Respiratory
433	810	301 Enanta	\$1.6 billion	\$97 million	-\$92 million	Boston Area, US	Public Company	Biotechnology	Small Molecules	Hepatology
434	1183	NA Xenon Pharmaceution	cals \$1.6 billion	\$18 million	-\$60 million	Burnaby, Canada	Public Company	Biotechnology	Small Molecules	Neurology
435	430	NA Bimeda Animal Heal	th \$1.6 billion	\$229 million	\$87.7 million	Ireland	Private Company	Animal Health	Small Molecules	Animal Health
436	1139	1146 Anavex	\$1.6 billion	NA	NA	New York Area, US	Public Company	Biotechnology	Small Molecules	Neurology
437	369	NA Brilliant Pharma	\$1.6 billion	\$586 million	NA	Sichuan Province, China	Private Company	Generics - China	Small Molecules	Broad
438	NA	NA Keqian Biology	\$1.6 billion	\$157 million	\$84 million	Hubei Province, China	Public Company	Animal Health	Vaccines	Animal Health
439	383	NA Siam Bioscience	\$1.6 billion	\$169 million	NA	Thailand	Private Company	Biosimilars	Biologics	Oncology
440	na	NA Laboratorios Pisa	\$1.6 billion	\$580 million	NA	Mexico	Private Company	Generics - Branded	Small Molecules	Pediatrics
441	661	473 Travere Therapeutic	s \$1.6 billion	\$221 million	-\$89 million	San Diego, US	Public Company	Branded Pharma	Small Molecules	Rare Disease
442	386	429 HIPRA	\$1.5 billion	\$293 million	NA	Spain, Other	Private Company	Animal Health	Small Molecules	Animal Health
443	278	122 Hisamitsu	\$1.5 billion	\$1.1 billion	\$136 million	Japan, Other	Public Company	Branded Pharma	Small Molecules	Pain
444	337	186 Bailing Group Pharm	a \$1.5 billion	\$473 million	\$37 million	Guizhou, China	Public Company	Generics - China	Small Molecules	Broad
445	347	183 SSY Group	\$1.5 billion	\$634 million	\$149 million	Hong Kong	Public Company	Generics - China	Small Molecules	Broad
446	411	314 Clinigen	\$1.5 billion	\$723 million	\$149 million	Northern UK	Public Company	Branded Pharma	Small Molecules	Mature Products
447	308	677 Fudan-Zhangjiang	\$1.5 billion	\$161 million	\$31 million	Shanghai, China	Public Company	Generics - China	Small Molecules	Generics
448	398	NA Alphamab Oncology	\$1.5 billion	\$7 million	-\$68 million	Jiangsu Province, China	Public Company	Biotechnology	Biologics	Oncology
449	420	375 SPIMACO	\$1.5 billion	\$410 million	\$58 million	Saudi Arabia	Public Company	Generics - Branded	Small Molecules	Broad
450	998	NA Telix	\$1.5 billion	\$5 million	-\$42 million	Australia	Public Company	Biotechnology	Radiopharmaceuticals	Oncology

Pharma 1000: Ranks 451 to 475

V	alue Rai	nk		Value		Profit					l and Thomas autin
2021	2020	2018	Name	Estimate (Nov 5, 2021)	Revenue	(EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
451	373	432	Acino	\$1.5 billion	\$562 million	NA	Zurich, Switzerland	Private Company	Generics - Branded	Small Molecules	Broad
452	414	412	Isdin	\$1.5 billion	\$284 million	NA	Barcelona, Spain	Private Company	Branded Pharma	Small Molecules	Dermatology
453	224	222	Padagis	\$1.5 billion	\$968 million	NA	Michigan, US	Private Company	Generics - INN	Small Molecules	Broad
454	418	298	FujiFilm Pharma	\$1.5 billion	NA	NA	Tokyo, Japan	Public Company Segment	Branded Pharma	Small Molecules	Oncology
455	NA	NA	Covis Pharma	\$1.5 billion	NA	NA	Luxembourg	Private Company	Branded Pharma	Small Molecules	Respiratory
456	397	NA	Hugel	\$1.5 billion	\$221 million	\$104 million	South Korea	Public Company	Branded Pharma	Biologics	Dermatology
457	434	578	Biological E.	\$1.5 billion	\$162 million	NA	Hyderabad, India	Private Company	Biosimilars	Vaccines	Vaccines
458	559	NA	Yipinhong Pharma	\$1.5 billion	\$331 million	\$31 million	Guangdong Province, China	Public Company	Generics - China	Small Molecules	Broad
459	299	NA	Bio-Thera Solutions	\$1.5 billion	\$76 million	-\$39 million	Guangdong Province, China	Public Company	Biosimilars	Biologics	Oncology
460	371	700	Grupo Uriach	\$1.5 billion	\$281 million	NA	Barcelona, Spain	Private Company	Branded Pharma	Small Molecules	Cardiometabolic
461	403	439	Kimia Farma	\$1.5 billion	\$748 million	\$56 million	Indonesia	Public Company	Generics - Branded	Small Molecules	Broad
462	855	670	SERB	\$1.5 billion	\$280 million	NA	Belgium	Private Company	Branded Pharma	Small Molecules	Hospital
463	298	NA	Dendreon / Sanpower	\$1.5 billion	\$279 million	\$136 million	Los Angeles, US	Public Company Segment	Branded Pharma	Cell Therapy	Oncology
464	561	NA	Eris Lifesciences	\$1.5 billion	\$172 million	\$63 million	Ahmedabad, India	Public Company	Generics - Branded	Small Molecules	Broad
465	814	NA	Organogenesis	\$1.5 billion	\$433 million	\$89 million	Boston Area, US	Public Company	Branded Pharma	Cell Therapy	Wound Care
466	NA	NA	HitGen Inc.	\$1.5 billion	\$54 million	\$10 million	Sichuan Province, China	Public Company	Biotechnology	Small Molecules	Broad
467	474	NA	Reliance Life Sciences	\$1.5 billion	\$159 million	NA	Mumbai, India	Private Company	Biosimilars	Biologics	Broad
468	NA	NA	Jacobio Pharma	\$1.5 billion	\$84 million	\$25 million	Beijing, China	Public Company	Biotechnology	Small Molecules	Oncology
469	407	228	Zixin Pharma	\$1.4 billion	\$38 million	-\$42 million	Jilin Province, China	Public Company	Generics - China	Naturals	Broad
470	1068	NA	Bicycle Therapeutics	\$1.4 billion	\$12 million	-\$63 million	Cambridge and Oxford, UK	Public Company	Biotechnology	Peptides	Oncology
471	465	497	Ringpu BioTech	\$1.4 billion	\$316 million	\$75 million	Hebei Province, China	Public Company	Generics - China	Small Molecules	Animal Health
472	270	NA	Axsome	\$1.4 billion	NA	-\$107 million	New York Area, US	Public Company	Biotechnology	Small Molecules	Neurology
473	1142	NA	Grindeks	\$1.4 billion	\$269 million	NA	Latvia	Public Company	Branded Pharma	Small Molecules	Oncology
474	598	258	Daewoong Pharma	\$1.4 billion	\$976 million	\$86 million	South Korea	Public Company	Generics - Branded	Small Molecules	Broad
475	384	247	JT Pharma / Torii	\$1.4 billion	\$765 million	NA	Tokyo, Japan	Public Company Segment	Branded Pharma	Small Molecules	Renal

Pharma 1000: Ranks 476 to 500

Va	alue Rai	nk	Value		D (")					
2021	2020	2018 Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
476	338	261 Aristo Pharma	\$1.4 billion	\$527 million	NA	Berlin, Germany	Private Company	Generics - Branded	Small Molecules	Broad
477	442	441 URSAPHARM	\$1.4 billion	\$267 million	NA	Rhine Area, Germany	Private Company	Branded Pharma	Small Molecules	ophthalmology
478	360	553 MSN Laboratories	\$1.4 billion	\$520 million	NA	Hyderabad, India	Private Company	Generics - Branded	Small Molecules	Broad
479	272	NA Guojian Pharmaceutical	\$1.4 billion	\$149 million	-\$28 million	Shanghai, China	Public Company	Branded Pharma	Biologics	Immunology
480	316	184 Teijin Pharma	\$1.4 billion	\$750 million	NA	Tokyo, Japan	Public Company Segment	Branded Pharma	Small Molecules	Bone & Osteo
481	220	245 Genexine	\$1.4 billion	\$39 million	-\$16 million	South Korea	Public Company	Biotechnology	Biologics	Rare Disease
482	NA	NA EuBiologics	\$1.4 billion	\$29 million	-\$2.9 million	South Korea	Public Company	Branded Pharma	Vaccines	Vaccines
483	610	NA Immunocore	\$1.4 billion	NA	-\$145 million	Cambridge and Oxford, UK	Public Company	Biotechnology	Cell Therapy	Oncology
484	NA	NA Caribou Biosciences, Inc.	\$1.4 billion	\$5 million	-\$52 million	Bay Area, US	Public Company	Biotechnology	Gene Editing	Oncology
485	330	NA ASK Pharm	\$1.4 billion	\$545 million	\$107 million	Jiangsu Province, China	Public Company	Generics - China	Small Molecules	Broad
486	401	445 USV	\$1.3 billion	\$502 million	NA	Mumbai, India	Private Company	Generics - Branded	Small Molecules	Broad
487	NA	NA Haihe Biotechnology	\$1.3 billion	NA	NA	Jiangsu Province, China	Private Company	Biotechnology	Small Molecules	Oncology
488	388	327 Quantum Hi-Tech	\$1.3 billion	\$260 million	\$38 million	Guangdong Province, China	Public Company	Generics - China	Small Molecules	Broad
489	370	NA Medochemie	\$1.3 billion	\$500 million	NA	Cyprus	Private Company	Generics - Branded	Small Molecules	Broad
490	377	135 SL Pharm	\$1.3 billion	\$184 million	\$47 million	Hainan Province, China	Public Company	Generics - China	Small Molecules	Broad
491	425	NA Microgen	\$1.3 billion	\$145 million	NA	Russia	Private Company	Biosimilars	Vaccines	Vaccines
492	NA	NA Hainan Huluwa Pharma	\$1.3 billion	\$195 million	\$18 million	Hainan Province, China	Public Company	Branded Pharma	Small Molecules	Pediatrics
493	455	425 Coherus	\$1.3 billion	\$395 million	-\$135 million	Bay Area, US	Public Company	Biosimilars	Biologics	Broad
494	848	692 MannKind	\$1.3 billion	\$75 million	-\$28 million	Los Angeles, US	Public Company	Branded Pharma	Small Molecules	Cardiometabolic
495	NA	NA Day One Biopharmaceuticals	\$1.3 billion	NA	-\$41 million	Bay Area, US	Public Company	Biotechnology	Small Molecules	Oncology
496	390	352 Sebela Pharma	\$1.3 billion	\$250 million	NA	Atlanta, US	Private Company	Branded Pharma	Small Molecules	Gastroenterology
497	NA	NA Abbisko	\$1.3 billion	\$NA million	NA	Shanghai, China	Public Company	Biotechnology	Small Molecules	Oncology
498	432	NA Northeast Pharma	\$1.3 billion	\$1.2 billion	\$125 million	Shenyang Province, China	Public Company	Generics - China	Small Molecules	Broad
499	477	392 Mayinglong Pharma	\$1.3 billion	\$557 million	\$70 million	Hubei Province, China	Public Company	Generics - China	Small Molecules	Broad
500	717	NA Alector	\$1.3 billion	\$198 million	-\$28 million	Bay Area, US	Public Company	Biotechnology	Biologics	Neurology

Pharma 1000: Ranks 501 to 525

Va	Value Rank			Value		D. CI					1 - 1 - 1 - 1 - 1 - 1 - 1
2021	2020	2018	8 Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
501	410	651	Gebro Pharma	\$1.3 billion	\$244 million	NA	Austria	Private Company	Branded Pharma	Small Molecules	Pain
502	699	595	Beximco Pharma	\$1.3 billion	\$348 million	\$87 million	Bangladesh	Public Company	Generics - Branded	Small Molecules	Broad
503	551	NA	NGM Bio	\$1.3 billion	\$77 million	-\$115 million	Bay Area, US	Public Company	Biotechnology	Biologics	Oncology
504	514	NA	Mithra	\$1.3 billion	\$22 million	-\$97 million	Belgium	Public Company	Branded Pharma	Small Molecules	Womens Health
505	615	199	Supernus	\$1.3 billion	\$564 million	\$155 million	Washington DC Area, US	Public Company	Branded Pharma	Small Molecules	Neurology
506	620	311	Atara Biotherapeutics	\$1.3 billion	\$13 million	-\$320 million	Bay Area, US	Public Company	Biotechnology	Gene Therapy	Rare Disease
507	706	331	Radius	\$1.3 billion	\$249 million	-\$38 million	Boston Area, US	Public Company	Branded Pharma	Small Molecules	Bone & Osteo
508	NA	NA	Tenaya Therapeutics	\$1.3 billion	NA	-\$46 million	Bay Area, US	Public Company	Biotechnology	Cell Therapy	Cardiometabolic
509	439	383	Lukang Pharma	\$1.3 billion	\$728 million	\$71 million	Shandong Province, China	Public Company	Generics - China	Small Molecules	Broad
510	331	NA	Hile Bio-Technology	\$1.3 billion	\$51 million	\$9.3 million	Shanghai, China	Public Company	Animal Health	Small Molecules	Animal Health
511	991	723	SOTHEMA	\$1.3 billion	\$217 million	\$52 million	Morocco	Public Company	Generics - Branded	Small Molecules	Broad
512	512	275	Phibro Animal Health	\$1.3 billion	\$853 million	\$104 million	New York Area, US	Public Company	Animal Health	Small Molecules	Animal Health
513	459	307	Madrigal Pharma	\$1.2 billion	NA	-\$237 million	Philadelphia Area, US	Public Company	Biotechnology	Small Molecules	Cardiometabolic
514	490	254	Heron Therapeutics	\$1.2 billion	\$86 million	-\$217 million	San Diego, US	Public Company	Branded Pharma	Small Molecules	Oncology
515	NA	NA	Ewopharma	\$1.2 billion	\$235 million	NA	Switzerland, Other	Private Company	Branded Pharma	Small Molecules	Broad
516	391	320	Tecnoquimicas	\$1.2 billion	\$463 million	NA	Colombia	Private Company	Generics - Branded	Small Molecules	Broad
517	663	678	Clinuvel Pharma	\$1.2 billion	\$36 million	\$22 million	Zurich, Switzerland	Public Company	Branded Pharma	Small Molecules	Rare Disease
518	NA	NA	Sinopep-Allsino Bio Pharma	\$1.2 billion	\$100 million	\$32 million	Zhejiang Province, China	Public Company	Branded Pharma	Peptides	Virology
519	747	811	Protagonist Therapeutics	\$1.2 billion	\$24 million	-\$107 million	Bay Area, US	Public Company	Biotechnology	Peptides	Rare Disease
520	413	NA	Laboratorio Elea	\$1.2 billion	\$232 million	NA	Argentina	Private Company	Branded Pharma	Biologics	Broad
521	940	262	Sihuan Pharma	\$1.2 billion	\$514 million	\$201 million	Beijing, China	Public Company	Generics - China	Small Molecules	Broad
522	618	339	REGENXBIO	\$1.2 billion	\$93 million	-\$198 million	Washington DC Area, US	Public Company	Biotechnology	Gene Therapy	ophthalmology
523	348	277	Norbrook Laboratories	\$1.2 billion	\$231 million	NA	Northern Ireland, United Kingdom	Private Company	Animal Health	Small Molecules	Animal Health
524	687	160	Hengkang Medical	\$1.2 billion	\$469 million	\$46 million	Sichuan Province, China	Public Company	Generics - China	Naturals	Broad
525	379	325	Xiangxue Pharma	\$1.2 billion	\$437 million	\$48 million	Guangdong Province, China	Public Company	Generics - China	Small Molecules	Oncology

Pharma 1000: Ranks 526 to 550

V	alue Rai	nk		Value		D (")					
2021	2020	2018	B Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
526	478	364	Zeria Pharma	\$1.2 billion	\$513 million	\$85 million	Tokyo, Japan	Public Company	Branded Pharma	Small Molecules	Gastroenterology
527	NA	NA	Center Laboratories	\$1.2 billion	\$21 million	-\$31 million	Taiwan	Public Company	Branded Pharma	Small Molecules	Broad
528	440	NA	AlloVir	\$1.2 billion	NA	-\$118 million	Boston Area, US	Public Company	Biotechnology	Cell Therapy	Virology
529	NA	NA	Prime Medicine	\$1.2 billion	NA	NA	Boston Area, US	Private Company	Biotechnology	Gene Therapy	Broad
530	419	581	Sanovel	\$1.2 billion	\$227 million	NA	Turkey	Private Company	Branded Pharma	Small Molecules	Broad
531	532	843	Cantabria Labs	\$1.2 billion	\$227 million	NA	Madrid, Spain	Private Company	Generics - Branded	Small Molecules	Dermatology
532	NA	NA	Nuvation Bio Inc.	\$1.2 billion	NA	-\$66 million	Bay Area, US	Public Company	Biotechnology	Small Molecules	Oncology
533	482	715	Mezzion	\$1.2 billion	\$26 million	-\$2.3 million	South Korea	Public Company	Biotechnology	Small Molecules	Rare Disease
534	354	153	Agios	\$1.2 billion	\$203 million	-\$329 million	Boston Area, US	Public Company	Branded Pharma	Small Molecules	Oncology
535	697	585	Dicerna Pharma	\$1.2 billion	\$179 million	-\$120 million	Boston Area, US	Public Company	Biotechnology	Nucleic Acids	Rare Disease
536	468	681	Zealand Pharma	\$1.2 billion	\$40 million	-\$177 million	Copenhagen, Denmark	Public Company	Biotechnology	Peptides	Cardiometabolic
537	505	NA	Nurix Therapeutics	\$1.2 billion	\$29 million	-\$97 million	Bay Area, US	Public Company	Biotechnology	Nucleic Acids	Oncology
538	665	NA	Replimune	\$1.2 billion	NA	-\$94 million	Boston Area, US	Public Company	Biotechnology	Cell Therapy	Oncology
539	NA	NA	SK Chemical	\$1.2 billion	\$220 million	NA	South Korea	Private Company	Branded Pharma	Small Molecules	Broad
540	NA	NA	Omega Therapeutics	\$1.2 billion	NA	-\$44 million	Boston Area, US	Public Company	Biotechnology	Nucleic Acids	Gastroenterology
541	423	418	uniQure	\$1.2 billion	\$500 million	\$302 million	Netherlands	Public Company	Biotechnology	Gene Therapy	Rare Disease
542	496	444	Amarin	\$1.1 billion	\$606 million	\$18 million	New York Area, US	Public Company	Branded Pharma	Small Molecules	Cardiometabolic
543	402	367	Arkopharma	\$1.1 billion	\$217 million	NA	Lyon, France	Private Company	Branded Pharma	Small Molecules	ENT
544	443	483	União Química	\$1.1 billion	\$427 million	NA	Sao Paolo Brazil	Private Company	Generics - Branded	Small Molecules	Broad
545	1046	NA	Rubius Therapeutics	\$1.1 billion	NA	-\$166 million	Boston Area, US	Public Company	Biotechnology	Cell Therapy	Rare Disease
546	651	992	BioArctic	\$1.1 billion	\$3 million	-\$14 million	Norway	Public Company	Biotechnology	Naturals	Neurology
547	463	406	Changshan Bio	\$1.1 billion	\$448 million	\$65 million	Hebei Province, China	Public Company	Generics - China	Small Molecules	Broad
548	529	NA	Precigen	\$1.1 billion	\$101 million	-\$76 million	Washington DC Area, US	Public Company	Biotechnology	Nucleic Acids	Oncology
549	493	399	Faes Farma	\$1.1 billion	\$482 million	\$130 million	Madrid, Spain	Public Company	Branded Pharma	Small Molecules	Allergy
550	516	468	Mayoly Spindler	\$1.1 billion	\$213 million	NA	Paris, France	Private Company	Branded Pharma	Small Molecules	Gastroenterology

Pharma 1000: Ranks 551 to 575

Va	alue Rai	nk		Value		D. Ci					Las I Thanks Ca
2021	2020	2018	Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
551	1012	NA	Crinetics Pharma	\$1.1 billion	NA	-\$98 million	San Diego, US	Public Company	Biotechnology	Biologics	Rare Disease
552	600	362	Sangamo Therapeutics	\$1.1 billion	\$109 million	-\$179 million	Bay Area, US	Public Company	Biotechnology	Nucleic Acids	Rare Disease
553	296	NA	Turning Point	\$1.1 billion	\$55 million	-\$153 million	San Diego, US	Public Company	Biotechnology	Small Molecules	Oncology
554	NA	NA	Ventyx Biosciences, Inc.	\$1.1 billion	NA	NA	Bay Area, US	Public Company	Biotechnology	Small Molecules	Immunology
555	450	323	Cosmo Pharma	\$1.1 billion	\$75 million	\$11 million	Lugano, Switzerland	Public Company	Branded Pharma	Small Molecules	Gastroenterology
556	336	206	Haiyao	\$1.1 billion	\$316 million	-\$64 million	Hainan Province, China	Public Company	Generics - China	Small Molecules	Broad
557	NA	NA	BNC Korea	\$1.1 billion	\$19 million	-\$3.9 million	South Korea	Public Company	Branded Pharma	Small Molecules	Dermatology
558	NA	NA	Procaps	\$1.1 billion	NA	NA	Colombia	Public Company	Generics - Branded	Small Molecules	Broad
559	794	389	ImmunoGen	\$1.1 billion	\$128 million	-\$52 million	Boston Area, US	Public Company	Biotechnology	Biologics	Oncology
560	NA	NA	Prometheus Biosciences	\$1.1 billion	\$2 million	-\$47 million	San Diego, US	Public Company	Biotechnology	Small Molecules	Gastroenterology
561	449	387	Theravance Biopharma	\$1.1 billion	\$59 million	-\$271 million	Bay Area, US	Public Company	Biotechnology	Small Molecules	Respiratory
562	NA	NA	MedPacto	\$1.1 billion	NA	-\$26 million	South Korea	Public Company	Biotechnology	Small Molecules	Oncology
563	961	NA	Darnitsa	\$1.1 billion	\$133.9 million	\$51 million	Ukraine	Private Company	Generics - Branded	Small Molecules	Generics
564	421	397	Abiogen Pharma	\$1.1 billion	\$206 million	\$93 million	Italy, Other	Private Company	Branded Pharma	Small Molecules	Bone & Osteo
565	780	993	Northwest Biotherapeutics	\$1.1 billion	\$1 million	-\$72 million	Washington DC Area, US	Public Company	Biotechnology	Small Molecules	Oncology
566	643	NA	Keros Therapeutics	\$1.1 billion	NA	-\$64 million	Boston Area, US	Public Company	Biotechnology	Biologics	Oncology
567	542	NA	Haixin Group	\$1.1 billion	\$200 million	-\$5.8 million	Shanghai, China	Public Company	Generics - China	Small Molecules	Generics
568	341	615	PharmaMar	\$1.1 billion	\$222 million	\$79 million	Madrid, Spain	Public Company	Branded Pharma	Naturals	Oncology
569	473	NA	Zhenghai Biotech	\$1.1 billion	\$59 million	\$24 million	Shandong Province, China	Public Company	Biosimilars	Cell Therapy	Bone & Osteo
570	673	725	Blau Farmacêutica	\$1.1 billion	\$267 million	\$99 million	Sao Paolo Brazil	Public Company	Generics - Branded	Small Molecules	Broad
571	515	664	LACER	\$1.1 billion	\$204 million	NA	Barcelona, Spain	Private Company	Branded Pharma	Small Molecules	Cardiometabolic
572	446	556	MacroGenics	\$1.1 billion	\$116 million	-\$136 million	Washington DC Area, US	Public Company	Biotechnology	Biologics	Oncology
573	566	401	Sosei	\$1.1 billion	\$85 million	\$13 million	Tokyo, Japan	Public Company	Biotechnology	Small Molecules	Respiratory
574	448	NA	Medison	\$1.1 billion	\$200 million	NA	Israel	Private Company	Branded Pharma	Biologics	Broad
575	560	871	TerSera Therapeutics	\$1.1 billion	\$200 million	NA	Chicago Area	Private Company	Branded Pharma	Small Molecules	Oncology

Pharma 1000: Ranks 576 to 600

Va	alue Rai	nk		Value		D. Ci					1 - 1 - 1
2021	2020	2018	B Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
576	738	913	Alora Pharma	\$1.1 billion	\$200 million	NA	Atlanta, US	Private Company	Branded Pharma	Small Molecules	Womens Health
577	599	393	Zhendong Pharma	\$1 billion	\$858 million	\$89 million	Shanxi Province, China	Public Company	Generics - China	Small Molecules	Broad
578	433	274	Sunflower Pharma	\$1 billion	\$663 million	\$132 million	Heilongjiang Province, China	Public Company	Generics - China	Small Molecules	Broad
579	558	341	Wockhardt	\$1 billion	\$400 million	\$3 million	Mumbai, India	Public Company	Generics - INN	Small Molecules	Broad
580	NA	NA	Green Cross Lab Cell	\$1 billion	\$94 million	\$12 million	South Korea	Public Company	Branded Pharma	Cell Therapy	Oncology
581	NA	NA	Mind Medicine	\$1 billion	NA	-\$69 million	New York Area, US	Public Company	Biotechnology	Small Molecules	Neurology
582	NA	NA	Vaxcyte	\$1 billion	NA	-\$86 million	Bay Area, US	Public Company	Biotechnology	Vaccines	Vaccines
583	NA	NA	GeneOne Life Science	\$1 billion	\$40 million	-\$15 million	South Korea	Public Company	Biotechnology	Small Molecules	Kidney
584	549	229	Clovis Oncology	\$1 billion	\$156 million	-\$224 million	Colorado, U.S.	Public Company	Branded Pharma	Small Molecules	Oncology
585	546	NA	Zhejiang Int'l Group	\$1 billion	\$4.1 billion	\$108 million	Zhejiang Province, China	Public Company	Generics - Branded	Small Molecules	Generics
586	462	NA	Weiguang Biological	\$1 billion	\$142 million	\$40 million	Guangdong Province, China	Public Company	Branded Pharma	Blood Products	Blood Products
587	531	201	Jiuzhitang	\$1 billion	\$589 million	\$80 million	Hubei Province, China	Public Company	Generics - China	Naturals	Broad
588	506	NA	Camurus	\$1 billion	\$60 million	-\$20 million	Sweden	Public Company	Branded Pharma	Small Molecules	Endocrinology
589	538	NA	AYUMI Pharmaceutical	\$1 billion	\$239 million	NA	Japan, Other	Private Company	Generics - Branded	Small Molecules	Generics
590	441	231	Hybio Pharma	\$998.5 million	\$84 million	-\$94 million	Guangdong Province, China	Public Company	Generics - China	Small Molecules	Broad
591	350	729	Inovio Pharma	\$997.4 million	\$6 million	-\$198 million	Philadelphia Area, US	Public Company	Biotechnology	Small Molecules	Oncology
592	659	600	Farmak	\$995.5 million	\$285 million	\$54.7 million	Ukraine	Private Company	Generics - Branded	Small Molecules	Broad
593	527	343	Sanjin	\$990.1 million	\$268 million	\$48 million	Guangxi Province, China	Public Company	Generics - China	Naturals	Broad
594	357	481	Revance	\$985.4 million	\$47 million	-\$265 million	Bay Area, US	Public Company	Branded Pharma	Biologics	Dermatology
595	700	519	MiMedx	\$982.6 million	\$260 million	-\$18 million	Atlanta, US	Public Company	Branded Pharma	Small Molecules	Wound Care
596	556	404	Huaren Pharma	\$979.1 million	\$729 million	\$55 million	Shandong Province, China	Public Company	Generics - China	Small Molecules	Broad
597	NA	NA	GH Research	\$974 million	NA	NA	Ireland	Public Company	Biotechnology	Small Molecules	Psychiatry
598	387	322	Zhongsheng Pharma	\$970.2 million	\$374 million	\$68 million	Guangdong Province, China	Public Company	Generics - China	Small Molecules	Broad
599	782	565	Jianmin Group	\$967.5 million	\$536 million	\$31 million	Hubei Province, China	Public Company	Generics - China	Small Molecules	Broad
600	625	NA	Cstone Pharma	\$965.7 million	\$173 million	-\$171 million	Jiangsu Province, China	Public Company	Biotechnology	Small Molecules	Oncology

Pharma 1000: Ranks 601 to 625

Va	alue Rar	nk		Value		D. CI					Las I T hanas Ca
2021	2020	2018	8 Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
601	586	762	Agenus	\$962.7 million	\$69 million	-\$145 million	Boston Area, US	Public Company	Biotechnology	Biologics	Oncology
602	722	345	SPARC	\$962.5 million	\$13 million	-\$30 million	Mumbai, India	Public Company	Biotechnology	Small Molecules	Oncology
603	568	534	Amphastar Pharma	\$958.8 million	\$384 million	\$56 million	Los Angeles, US	Public Company	Generics - INN	Small Molecules	Broad
604	NA	NA	Imago BioSciences	\$958.1 million	NA	NA	Bay Area, US	Public Company	Biotechnology	Small Molecules	Hematology
605	777	398	Intersect ENT	\$956.6 million	\$104 million	-\$52 million	Bay Area, US	Public Company	Branded Pharma	Small Molecules	ENT
606	NA	NA	Immunotech Biopharm	\$953.1 million	NA	-\$55 million	Beijing, China	Public Company	Biotechnology	Cell Therapy	Oncology
607	562	498	Dexa Medica	\$951 million	NA	NA	Indonesia	Private Company	Generics - Branded	Small Molecules	Broad
608	521	672	Eczacıbaşı İlaç Sanayi	\$945.1 million	\$179 million	NA	Turkey	Private Company	Branded Pharma	Small Molecules	Oncology
609	498	NA	Sam Chun Dang Pharm	\$943.6 million	\$143 million	-\$2.5 million	South Korea	Public Company	Generics - Branded	Small Molecules	Broad
610	405	NA	Dezhan Healthcare	\$942.4 million	\$99 million	\$18 million	Beijing, China	Public Company	Generics - China	Small Molecules	Broad
611	825	NA	NKMax	\$942.4 million	\$11 million	-\$31 million	Los Angeles, US	Public Company	Generics - INN	Small Molecules	Generics
612	658	NA	RAPT Therapeutics	\$941.4 million	\$5 million	-\$59 million	Bay Area, US	Public Company	Biotechnology	Small Molecules	Oncology
613	NA	NA	The United Laboratories Intl	\$941.2 million	\$1.4 billion	\$301 million	Hong Kong	Public Company	Generics - China	Small Molecules	Broad
614	307	NA	Ocumension	\$930.3 million	\$5 million	-\$64 million	Jiangsu Province, China	Public Company	Biotechnology	Small Molecules	Opthamology
615	447	610	Kern Pharma	\$928.1 million	\$346 million	NA	Barcelona, Spain	Private Company	Generics - Branded	Small Molecules	Broad
616	479	555	Laboratoire Aguettant	\$926.6 million	\$176 million	NA	Lyon, France	Private Company	Branded Pharma	Small Molecules	Hospital
617	481	453	Duchesnay	\$924 million	\$175 million	NA	Quebec, Canada	Private Company	Branded Pharma	Small Molecules	Womens Health
618	NA	NA	BioAtla	\$922.1 million	NA	-\$73 million	Bay Area, US	Public Company	Biotechnology	Biologics	Oncology
619	530	372	KPC	\$917.1 million	\$1.3 billion	\$91 million	Yunnan Province, China	Public Company	Generics - China	Small Molecules	Cardiometabolic
620	552	954	Normon	\$916.5 million	\$342 million	NA	Madrid, Spain	Private Company	Generics - Branded	Small Molecules	Broad
621	563	NA	Avidity Biosciences	\$913.4 million	\$9 million	-\$78 million	San Diego, US	Public Company	Biotechnology	Nucleic Acids	Neurology
622	494	459	VTR Bio-tech	\$913 million	\$275 million	\$49 million	Guangdong Province, China	Public Company	Generics - China	Small Molecules	Broad
623	NA	NA	Essential Pharma	\$912 million	\$90 million	\$60 million	London, United Kingdom	Private Company	Generics - Branded	Small Molecules	Broad
624	NA	NA	ABL Bio Inc.	\$906.1 million	\$9 million	-\$41 million	South Korea	Public Company	Biotechnology	Small Molecules	Oncology
625	NA	NA	AptaBio Therapeutics	\$905.7 million	NA	-\$7.6 million	South Korea	Public Company	Biotechnology	Small Molecules	Kidney

Pharma 1000: Ranks 626 to 650

Va	Value Rank		Value		D (")					
2021	2020	2018 Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
626	501	413 Strides Pharma Science	\$903.8 million	\$434 million	\$58 million	Bangalore, India	Public Company	Generics - Branded	Small Molecules	Broad
627	NA	NA Century Therapeutics	\$903.3 million	NA	-\$67 million	Philadelphia Area, US	Public Company	Biotechnology	Cell Therapy	Oncology
628	385	410 Theramex	\$903.1 million	\$171 million	NA	London, United Kingdom	Private Company	Branded Pharma	Small Molecules	Womens Health
629	NA	NA Harbin Medisan Pharma	\$902.2 million	\$168 million	-\$6.4 million	Heilongjiang Province, China	Public Company	Generics - China	Naturals	Broad
630	NA	NA Kinnate Biopharma	\$892.8 million	NA	-\$63 million	San Diego, US	Public Company	Biotechnology	Small Molecules	Oncology
631	771	616 Taloph	\$890.2 million	\$244 million	\$21 million	Henan Province, China	Public Company	Generics - China	Naturals	Broad
632	588	351 Jingxin Pharm	\$886.4 million	\$511 million	\$102 million	Zhejiang Province, China	Public Company	Generics - China	Small Molecules	Broad
633	758	571 Alliance Pharma	\$882.8 million	\$203 million	\$41 million	London, United Kingdom	Public Company	Branded Pharma	Small Molecules	Mature Products
634	701	461 Staidson	\$879.3 million	\$65 million	-\$22 million	Beijing, China	Public Company	Generics - China	Small Molecules	Broad
635	639	589 AOP Orphan	\$877.2 million	\$166 million	NA	Austria	Private Company	Branded Pharma	Small Molecules	Rare Disease
636	603	408 Jiangzhong Pharma	\$873.8 million	\$410 million	\$99 million	Jiangxi Province, China	Public Company	Generics - China	Naturals	Broad
637	608	575 Incepta Pharma	\$873.6 million	\$326 million	NA	Bangladesh	Private Company	Generics - Branded	Small Molecules	Broad
638	698	650 Boryung Pharma	\$866.6 million	\$520 million	\$58 million	South Korea	Public Company	Generics - Branded	Small Molecules	Broad
639	605	466 Dong-A Socio	\$864.9 million	\$718 million	\$96 million	South Korea	Public Company	Generics - Branded	Small Molecules	Broad
640	NA	NA Aidea Pharmaceutical	\$864.5 million	\$48 million	\$1.1 million	Jiangsu Province, China	Public Company	Generics - China	Naturals	Broad
641	537	335 Cadila Pharma	\$859.7 million	\$321 million	NA	Ahmedabad, India	Private Company	Generics - INN	Small Molecules	Broad
642	231	165 FibroGen	\$854.1 million	\$172 million	-\$209 million	Bay Area, US	Public Company	Biotechnology	Small Molecules	Hematology
643	622	NA Tong Ren Tang Technologie	s \$852.1 million	\$795 million	\$197 million	Beijing, China	Public Company	Generics - China	Naturals	Broad
644	1519	1148 Oramed Pharmaceuticals	\$850.7 million	\$3 million	-\$20 million	New York Area, US	Public Company	Biotechnology	Biologics	Cardiometabolic
645	534	NA Generation Bio	\$847.5 million	NA	-\$98 million	Boston Area, US	Public Company	Biotechnology	Gene Therapy	Rare Disease
646	510	446 Pulike Biological	\$847.4 million	\$171 million	\$43 million	Henan Province, China	Public Company	Animal Health	Vaccines	Vaccines
647	617	NA Repare Therapeutics	\$846.7 million	\$1 million	-\$78 million	Toronto Area, Canada	Public Company	Biotechnology	Small Molecules	Oncology
648	602	385 PharmaEssentia	\$846.7 million	\$22 million	-\$81 million	Taiwan	Public Company	Biotechnology	Biologics	Hematology
649	NA	NA Advanz Pharma	\$846 million	NA	NA	London, United Kingdom	Private Company	Branded Pharma	Small Molecules	Broad
650	NA	NA NeoImmuneTech	\$843.8 million	NA	-\$37 million	Washington DC Area, US	Public Company	Biotechnology	Biologics	Oncology

Pharma 1000: Ranks 651 to 675

Va	alue Rai	nk		Value		D (")					
2021	2020	2018	Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
651	573	292	Nippon Kayaku Pharma	\$843.6 million	\$456 million	\$259.7 million	Tokyo, Japan	Public Company Segment	Branded Pharma	Small Molecules	Oncology
652	623	463	Lingrui Pharma	\$841.8 million	\$409 million	\$66 million	Henan Province, China	Public Company	Generics - China	Naturals	Broad
653	NA	NA	Guerbet	\$841.7 million	\$845 million	\$114 million	France, Other	Public Company	Branded Pharma	Radiopharmaceuticals	Oncology
654	488	NA	Synthon	\$840.3 million	\$316 million	NA	Netherlands	Private Company	Generics - INN	Small Molecules	Generics
655	660	NA	Medis	\$840.1 million	\$159 million	NA	Llubjana, Slovenia	Private Company	Branded Pharma	Small Molecules	Broad
656	321	101	Sage Therapeutics	\$835.8 million	\$1.1 billion	\$643 million	Boston Area, US	Public Company	Branded Pharma	Small Molecules	CNS
657	408	368	HanAll Biopharma	\$833.5 million	\$84 million	\$10 million	South Korea	Public Company	Branded Pharma	Small Molecules	Cardiometabolic
658	572	495	Healios	\$825.7 million	NA	-\$41 million	Tokyo, Japan	Public Company	Biotechnology	Cell Therapy	ophthalmology
659	1236	939	Merus	\$823.8 million	\$43 million	-\$88 million	Netherlands	Public Company	Biotechnology	Biologics	Oncology
660	775	NA	Amryt Pharma	\$822.5 million	\$203 million	-\$11 million	Ireland	Public Company	Branded Pharma	Biologics	Cardiometabolic
661	574	NA	Kiniksa Pharma	\$821.2 million	NA	-\$171 million	Boston Area, US	Public Company	Biotechnology	Biologics	Immunology
662	607	NA	Jiudian Pharma	\$821.1 million	\$225 million	\$38 million	Changsha, China	Public Company	Generics - China	Small Molecules	Generics
663	517	496	Lummy Pharma	\$819.4 million	\$218 million	-\$13 million	Sichuan Province, China	Public Company	Generics - China	Small Molecules	Oncology
664	503	282	Kaken Pharma	\$819.3 million	\$679 million	\$174 million	Tokyo, Japan	Public Company	Branded Pharma	Small Molecules	Dermatology
665	565	465	Shandong Shanda	\$819.3 million	\$314 million	\$128 million	Shandong Province, China	Public Company	Generics - China	Small Molecules	Broad
666	763	872	Gongwin Biopharm	\$818.5 million	NA	-\$4.5 million	Taiwan	Public Company	Biotechnology	Small Molecules	Oncology
667	578	340	Tai'an Tang Pharma	\$817.3 million	\$389 million	-\$2 million	Shanghai, China	Public Company	Generics - China	Naturals	Broad
668	564	259	Tonghua Golden-Horse	\$816.5 million	\$221 million	-\$19 million	Jilin Province, China	Public Company	Generics - China	Naturals	Broad
669	NA	NA	WuZhong Pharma	\$813.6 million	\$288 million	-\$2.6 million	Jiangsu Province, China	Public Company	Generics - China	Small Molecules	Broad
670	319	1065	CytoDyn	\$810.8 million	NA	-\$89 million	Seattle, US	Public Company	Biotechnology	Small Molecules	Virology
671	NA	NA	Vaxcell-Bio Therapeutics	\$810.5 million	NA	-\$4 million	South Korea	Public Company	Biotechnology	Biologics	Oncology
672	520	536	Oscotec	\$808.6 million	\$26 million	-\$12 million	South Korea	Public Company	Biotechnology	Small Molecules	Immunology
673	NA	NA	Immuneering Corp	\$807.7 million	\$3 million	-\$24 million	Boston Area, US	Public Company	Biotechnology	Small Molecules	Broad
674	740	NA	Sciclone	\$805.4 million	NA	\$147 million	Shanghai, China	Public Company	Generics - Branded	Small Molecules	Hepatology
675	656	491	Lionco Pharma	\$804.4 million	\$137 million	\$5 million	Zhejiang Province, China	Public Company	Generics - China	Small Molecules	Broad

Pharma 1000: Ranks 676 to 700

Va	alue Rai	nk		Value		D . C.					1 1
2021	2020	2018	8 Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
676	509	NA	Chengdu Baiyu	\$804 million	\$300 million	NA	Sichuan Province, China	Private Company	Generics - China	Small Molecules	Broad
677	464	NA	Nordic Pharma	\$803 million	\$152 million	NA	Paris, France	Private Company	Branded Pharma	Small Molecules	Rheumatology
678	716	611	Shilpa	\$802.1 million	\$126 million	\$16 million	Bangalore, India	Public Company	Generics - Branded	Small Molecules	Broad
679	502	378	Kyorin	\$800.9 million	\$927 million	\$60 million	Tokyo, Japan	Public Company	Branded Pharma	Small Molecules	ENT
680	650	321	Yibai Pharmaceutical	\$800.6 million	\$556 million	\$107 million	Guizhou, China	Public Company	Generics - China	Small Molecules	Broad
681	800	464	ANI Pharmaceuticals	\$800 million	\$212 million	\$53 million	Minnesota, US	Public Company	Generics - INN	Small Molecules	Broad
682	467	239	Gloria Pharmaceuticals	\$799.8 million	\$490 million	\$4 million	Heilongjiang Province, China	Public Company	Generics - China	Small Molecules	Broad
683	NA	NA	Entrada Therapeutics, Inc.	\$799.7 million	NA	-\$33 million	Boston Area, US	Public Company	Biotechnology	Nucleic Acids	Neurology
684	486	338	Kanion Pharma	\$799.3 million	\$519 million	\$69 million	Jiangsu Province, China	Public Company	Generics - China	Small Molecules	Oncology
685	NA	NA	VIC Group	\$797.2 million	\$151 million	NA	Russia	Private Company	Animal Health	Small Molecules	Animal Health
686	957	NA	TransMedics Group	\$794.2 million	\$30 million	-\$25 million	Boston Area, US	Public Company	Biotechnology	Small Molecules	Transplant
687	545	806	Tris Pharma	\$792 million	\$150 million	NA	New York Area, US	Private Company	Branded Pharma	Small Molecules	Pediatrics
688	469	188	Medy-Tox	\$791.9 million	\$125 million	-\$4.5 million	South Korea	Public Company	Branded Pharma	Biologics	Dermatology
689	513	524	Vianex	\$791.1 million	\$295 million	NA	Greece	Private Company	Generics - Branded	Small Molecules	Broad
690	351	648	Mesoblast	\$787.1 million	\$7 million	-\$107 million	Melbourne, Australia	Public Company	Biotechnology	Cell Therapy	Rare Disease
691	1003	731	REYON Pharmaceutical	\$787.1 million	\$120 million	\$6.2 million	South Korea	Public Company	Generics - Branded	Small Molecules	Broad
692	1223	NA	Sutro Bio	\$785.9 million	\$69 million	-\$58 million	Bay Area, US	Public Company	Biotechnology	Biologics	Oncology
693	759	563	Caplin Point Laboratories	\$783.8 million	\$157 million	\$50 million	Chennai, India	Public Company	Generics - Branded	Small Molecules	Broad
694	NA	NA	PMV Pharmaceuticals	\$783.2 million	NA	-\$44 million	New York Area, US	Public Company	Biotechnology	Small Molecules	Oncology
695	NA	NA	Monte Rosa Therapeutics	\$782.5 million	NA	-\$47 million	Boston Area, US	Public Company	Biotechnology	Small Molecules	Oncology
696	735	NA	Krystal Biotech	\$779.4 million	NA	-\$49 million	Pittsburgh Area, US	Public Company	Biotechnology	Gene Therapy	Dermatology
697	444	267	HEC Pharma	\$779.2 million	\$72 million	-\$26 million	Guangdong Province, China	Public Company	Generics - China	Small Molecules	Broad
698	518	642	DONGKOOK Pharma	\$779 million	\$520 million	\$85 million	South Korea	Public Company	Generics - Branded	Small Molecules	Broad
699	519	833	TECNIMEDE	\$777.7 million	\$290 million	NA	Portugal	Private Company	Generics - Branded	Small Molecules	Broad
700	522	386	Eurocept	\$774.2 million	\$289 million	NA	Netherlands	Private Company	Branded Pharma	Small Molecules	Hospital

Pharma 1000: Ranks 701 to 725

Va	alue Rai	nk		Value		D . (")					Las I T hanas Ca
2021	2020	2018	Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
701	NA	NA	Olema Pharmaceuticals	\$773.6 million	NA	-\$50 million	Bay Area, US	Public Company	Biotechnology	Small Molecules	Oncology
702	523	835	IBIGEN	\$773.5 million	\$289 million	NA	Italy, Other	Private Company	Generics - Branded	Small Molecules	Broad
703	1021	NA	MeiraGTx	\$769.4 million	\$19 million	-\$58 million	New York Area, US	Public Company	Biotechnology	Gene Therapy	Ophthalmology
704	525	557	Cristalia	\$769.1 million	\$287 million	NA	Sao Paolo Brazil	Private Company	Generics - Branded	Small Molecules	Gastroenterology
705	1464	671	Aclaris Therapeutics	\$767.2 million	\$7 million	-\$58 million	Philadelphia Area, US	Public Company	Biotechnology	Small Molecules	Dermatology
706	NA	NA	SanLi Pharma	\$766.9 million	\$137 million	\$27 million	Guizhou, China	Public Company	Generics - China	Small Molecules	Pediatrics
707	694	455	Julphar	\$766.6 million	\$189 million	-\$8.9 million	United Arab Emirates	Public Company	Generics - Branded	Small Molecules	Broad
708	624	448	Xinhua Pharm	\$764.5 million	\$979 million	\$133 million	Shandong Province, China	Public Company	Generics - China	Small Molecules	Broad
709	630	482	Nihon Chouzai Generic Drugs	\$764 million	\$413 million	NA	Tokyo, Japan	Public Company Segment	Generics - Branded	Small Molecules	Broad
710	NA	NA	Ascentage Pharma	\$762.6 million	\$4 million	-\$114 million	Jiangsu Province, China	Public Company	Biotechnology	Small Molecules	Oncology
711	NA	NA	Kexing Bioproducts	\$761.5 million	\$190 million	\$19 million	Shandong Province, China	Public Company	Generics - China	Biologics	Virology
712	569	570	Tabuk Pharma	\$759.7 million	\$284 million	NA	Saudi Arabia	Private Company	Generics - Branded	Small Molecules	Broad
713	458	685	Kura Oncology	\$759 million	NA	-\$124 million	San Diego, US	Public Company	Biotechnology	Small Molecules	Oncology
714	431	NA	Y-mAbs Therapeutics	\$756.9 million	\$46 million	-\$99 million	New York Area, US	Public Company	Biotechnology	Biologics	Oncology
715	NA	NA	Tuoxin Pharmaceutical	\$756.6 million	\$81 million	\$24 million	Xinxiang Province, China	Public Company	Biotechnology		
716	437	329	Yungjin Pharm	\$756.3 million	\$148 million	\$13 million	South Korea	Public Company	Generics - Branded	Naturals	Broad
717	616	516	Jinhe Biotech	\$754 million	\$318 million	\$54 million	Liaoning Province, China	Public Company	Animal Health	Small Molecules	Animal Health
718	604	NA	Pharm-Sintez	\$752.5 million	\$281 million	NA	Russia	Private Company	Branded Pharma	Small Molecules	Generics
719	946	NA	Scholar Rock Holding	\$751.8 million	\$16 million	-\$106 million	Cambridge, MA	Public Company	Biotechnology	Small Molecules	Neurology
720	427	717	Zymeworks	\$747.4 million	\$22 million	-\$206 million	Vancouver, Canada	Public Company	Biotechnology	Biologics	Oncology
721	571	376	Omeros	\$747 million	\$87 million	-\$112 million	Seattle, US	Public Company	Branded Pharma	Small Molecules	ophthalmology
722	817	515	Huons	\$746.6 million	\$491 million	\$103 million	South Korea	Public Company	Generics - Branded	Small Molecules	Broad
723	675	NA	Arcutis Biotherapeutics	\$745.7 million	NA	-\$172 million	Los Angeles, US	Public Company	Biotechnology	Small Molecules	Dermatology
724	541	433	Karyopharm	\$744.5 million	\$119 million	-\$181 million	Boston Area, US	Public Company	Branded Pharma	Small Molecules	Oncology
725	804	NA	Gossamer Bio	\$744.2 million	NA	-\$215 million	San Diego, US	Public Company	Biotechnology	Small Molecules	Immunology

Pharma 1000: Ranks 726 to 750

Va	alue Rar	nk		Value		5 (")					
2021	2020	2018	Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
726	500	NA	iTeos Therapeutics	\$743 million	NA	-\$76 million	Boston Area, US	Public Company	Biotechnology	Biologics	Oncology
727	NA	NA	Janux Therapeutics	\$742.2 million	\$1 million	-\$11 million	San Diego, US	Public Company	Biotechnology	Biologics	Oncology
728	636	530	Collegium Pharmaceutical	\$740.6 million	\$326 million	\$136 million	Boston Area, US	Public Company	Branded Pharma	Small Molecules	Pain
729	NA	NA	Amoun	\$740 million	\$243 million	NA	Egypt	Private Company	Generics - Branded	Small Molecules	Broad
730	626	405	Chong Kun Dang Pharm	\$738.8 million	\$811 million	\$81 million	South Korea	Public Company	Generics - Branded	Small Molecules	Broad
731	684	414	Yabao Pharmaceutical	\$738.1 million	\$459 million	\$54 million	Shanxi Province, China	Public Company	Generics - China	Small Molecules	Broad
732	669	580	Desitin	\$732 million	\$139 million	NA	Germany, Other	Private Company	Branded Pharma	Small Molecules	Neurology
733	712	NA	Tchaikapharma	\$730.9 million	\$25 million	\$2.2 million	Bulgaria	Public Company	Generics - Branded	Small Molecules	Broad
734	613	377	Qianhong Biopharma	\$730.3 million	\$291 million	\$48 million	Jiangsu Province, China	Public Company	Generics - China	Small Molecules	Broad
735	550	853	Bottu	\$730.3 million	\$273 million	NA	Morocco	Private Company	Generics - Branded	Small Molecules	Broad
736	NA	537	Byondis	\$729.6 million	\$314 million	NA	Netherlands	Private Company	Biotechnology	Biologics	Broad
737	366	390	Bukwang Pharma	\$727.8 million	\$151 million	\$4.7 million	South Korea	Public Company	Generics - Branded	Small Molecules	Broad
738	592	333	SKK	\$725.2 million	\$392 million	NA	Tokyo, Japan	Private Company	Branded Pharma	Small Molecules	Renal
739	634	521	Jolly Pharmaceutical	\$724.3 million	\$217 million	\$40 million	Zhejiang Province, China	Public Company	Generics - China	Small Molecules	Broad
740	627	NA	Yoshindo	\$723.3 million	\$391 million	NA	Toyama, Japan	Private Company	Generics - Branded	Small Molecules	Broad
741	583	458	Esperion	\$720.7 million	\$73 million	-\$253 million	Michigan, US	Public Company	Branded Pharma	Small Molecules	Cardiometabolic
742	765	NA	Bath ASU	\$717.4 million	\$268 million	NA	London, United Kingdom	Private Company	Branded Pharma	Vaccines	Oncology
743	577	NA	Applied Molecular Transport	\$717 million	NA	-\$77 million	Bay Area, US	Public Company	Biotechnology	Biologics	Immunology
744	1478	737	Chinook Therapeutics	\$715 million	NA	-\$96 million	Bay Area, US	Public Company	Biotechnology	Biologics	Oncology
745	544	395	Zogenix	\$714.5 million	\$64 million	-\$209 million	Bay Area, US	Public Company	Branded Pharma	Small Molecules	Neurology
746	705	633	DOC Generici	\$711.7 million	\$266 million	NA	Milan, Italy	Private Company	Generics - Branded	Small Molecules	Broad
747	NA	NA	Acumen Pharmaceuticals	\$707.8 million	\$1 million	NA	Virginia	Public Company	Biotechnology	Small Molecules	Neurology
748	582	NA	JW Holdings	\$707.2 million	\$691 million	\$79 million	South Korea	Public Company	Generics - Branded	Small Molecules	Broad
749	593	NA	Stoke Therapeutics	\$704.4 million	NA	-\$66 million	Boston Area, US	Public Company	Biotechnology	Nucleic Acids	Neurology
750	801	752	PharmaResearch Products	\$702.4 million	\$118 million	\$50 million	South Korea	Public Company	Generics - Branded	Naturals	Dermatology

Pharma 1000: Ranks 751 to 775

Va	alue Rai	nk		Value		D . (")					Las IThanas Ca
2021	2020	2018	Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
751	237	190	MorphoSys	\$701.9 million	\$170 million	-\$251 million	Munich Area, Germany	Public Company	Biotechnology	Biologics	Oncology
752	557	514	Fudan Forward	\$698.8 million	\$156 million	\$15 million	Shanghai, China	Public Company	Generics - China	Naturals	Broad
753	NA	NA	Alzheon	\$698 million	NA	NA	Boston Area, US	Private Company	Biotechnology	Small Molecules	Neurology
754	732	500	OBI Pharma	\$697.5 million	\$3 million	-\$47 million	Taiwan	Public Company	Biotechnology	Small Molecules	Oncology
755	NA	NA	Cooper Pharma	\$696.8 million	\$260 million	NA	Morocco	Private Company	Generics - Branded	Small Molecules	Broad
756	606	NA	Jingfeng Pharma	\$695.3 million	\$78 million	-\$103 million	Shanghai, China	Public Company	Generics - China	Small Molecules	Hospital
757	NA	NA	Xilio Therapeutics, Inc.	\$695.3 million	NA	-\$73 million	Boston Area, US	Public Company	Biotechnology	Biologics	Oncology
758	426	290	Intercept Pharma	\$693.3 million	\$354 million	-\$71 million	New York Area, US	Public Company	Branded Pharma	Small Molecules	Cardiometabolic
759	761	739	Cara Therapeutics	\$693.2 million	\$123 million	\$7.1 million	New York Area, US	Public Company	Biotechnology	Small Molecules	Pain
760	NA	NA	RallyBio	\$691.3 million	NA	-\$40 million	New York Area, US	Public Company	Biotechnology	Biologics	Rare Disease
761	596	251	Shanghai Furen	\$690.9 million	\$443 million	\$109 million	Shanghai, China	Public Company	Generics - China	Small Molecules	Broad
762	695	906	AB Science	\$690.3 million	\$2 million	-\$15 million	Paris, France	Public Company	Biotechnology	Small Molecules	Rare Disease
763	667	NA	Valenta Pharma	\$689.2 million	\$257 million	NA	Russia	Private Company	Generics - Branded	Small Molecules	Broad
764	484	NA	Akero Therapeutics	\$686.3 million	NA	NA	Bay Area, US	Public Company	Biotechnology	Biologics	Hepatology
765	535	NA	BioXcel Therapeutics	\$686.1 million	NA	-\$98 million	New York Area, US	Public Company	Biotechnology	Small Molecules	Psychiatry
766	612	487	Bilim Pharmaceuticals	\$686 million	\$256 million	NA	Turkey	Private Company	Generics - Branded	Small Molecules	Broad
767	548	506	Guanhao Biotech	\$683.9 million	\$76 million	\$9 million	Guangdong Province, China	Public Company	Biosimilars	Cell Therapy	Other
768	NA	NA	Edgewise Therapeutics	\$681.1 million	NA	-\$27 million	Colorado, U.S.	Public Company	Biotechnology	Small Molecules	Neurology
769	524	369	Science Sun	\$680.4 million	\$235 million	\$22 million	Beijing, China	Public Company	Generics - China	Small Molecules	Broad
770	696	396	Jinghua Pharma	\$679.9 million	\$206 million	\$32 million	Jiangsu Province, China	Public Company	Generics - China	Small Molecules	Broad
771	NA	NA	Ever Pharma	\$675.8 million	NA	NA	Austria	Private Company	Branded Pharma	Small Molecules	Neurology
772	NA	NA	Cullinan Oncology	\$674.2 million	\$19 million	-\$62 million	Boston Area, US	Public Company	Biotechnology	Small Molecules	Oncology
773	NA	NA	Praxis Precision Medicines	\$674.2 million	NA	-\$134 million	Boston Area, US	Public Company	Biotechnology	Small Molecules	Neurology
774	690	559	Cosunter	\$671.2 million	\$57 million	-\$8.3 million	Fujian Province, China	Public Company	Branded Pharma	Small Molecules	Broad
775	584	683	Apsen	\$670 million	\$250 million	NA	Sao Paolo Brazil	Private Company	Generics - Branded	Small Molecules	Broad

Pharma 1000: Ranks 776 to 800

Va	alue Rai	nk		Value		Durett					I and Thomas and a
2021	2020	2018	3 Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
776	585	552	Dexcel Pharma	\$670 million	\$250 million	NA	Israel	Private Company	Generics - INN	Small Molecules	Broad
777	707	144	SillaJen	\$667.8 million	\$1 million	-\$17 million	South Korea	Public Company	Biotechnology	Cell Therapy	Oncology
778	671	601	FDC	\$665.9 million	\$198 million	\$47 million	Mumbai, India	Public Company	Generics - Branded	Small Molecules	Broad
779	737	360	ZENOAQ	\$665.6 million	\$360 million	NA	Tokyo, Japan	Private Company	Animal Health	Small Molecules	Animal Health
780	554	NA	Pharscin Pharma	\$665.5 million	\$140 million	\$25 million	Chongqing Province, China	Public Company	Generics - China	Small Molecules	Broad
781	813	295	Aerie Pharmaceuticals	\$665.1 million	\$104 million	-\$97 million	North Carolina, US	Public Company	Branded Pharma	Small Molecules	ophthalmology
782	703	NA	Konruns Pharma	\$663.7 million	\$133 million	\$22 million	Beijing, China	Public Company	Generics - China	Naturals	Hospital
783	1463	286	AnaptysBio	\$663.5 million	\$122 million	\$8.3 million	San Diego, US	Public Company	Biotechnology	Biologics	Dermatology
784	681	NA	Geropharm	\$663.1 million	\$72 million	NA	Russia	Private Company	Biosimilars	Biologics	Diabetes Care
785	753	NA	Hiteck Biological Pharma	\$662.6 million	\$88 million	\$6.8 million	Wuhan, China	Public Company	Generics - China	Small Molecules	Generics
786	704	NA	Exir Pharmaceutical	\$661.9 million	\$247 million	NA	Iran	Private Company	Generics - Branded	Small Molecules	Broad
787	709	1159	Vaxart	\$661.8 million	\$1 million	-\$58 million	Bay Area, US	Public Company	Biotechnology	Vaccines	Vaccines
788	594	462	Ampharco U.S.A.	\$659.2 million	\$246 million	NA	Vietnam	Private Company	Generics - Branded	Small Molecules	Broad
789	664	NA	VBI Vaccines	\$656.4 million	\$1 million	-\$56 million	Boston Area, US	Public Company	Biotechnology	Vaccines	Vaccines
790	NA	NA	Aura Biosciences	\$655.3 million	NA	-\$22 million	Boston Area, US	Public Company	Biotechnology	Biologics	Oncology
791	729	403	Mayne Pharma	\$651.3 million	\$300 million	\$38 million	Melbourne, Australia	Public Company	Generics - Branded	Small Molecules	Broad
792	NA	NA	Repertoire Immune Medicines	\$650 million	NA	NA	Boston Area, US	Private Company	Biotechnology	Biologics	Oncology
793	688	475	Senju Pharma	\$649.3 million	\$351 million	NA	Osaka, Japan	Private Company	Branded Pharma	Small Molecules	Ophthalmology
794	978	508	Tanvex	\$646.1 million	NA	-\$60 million	Taiwan	Public Company	Biosimilars	Biologics	Broad
795	NA	NA	Shen Lian Biomedical	\$646 million	\$48 million	\$17 million	Shanghai, China	Public Company	Animal Health	Biologics	Animal Health
796	731	NA	Ozon Pharmaceuticals	\$645.6 million	\$241 million	NA	Russia	Private Company	Generics - Branded	Small Molecules	Broad
797	NA	NA	Rani Therapeutics	\$645.2 million	\$3 million	-\$18 million	Bay Area, US	Public Company	Biotechnology	Biologics	Oncology
798	776	NA	Biosidus	\$644.7 million	\$55 million	NA	Argentina	Private Company	Biosimilars	Biologics	Broad
799	646	409	Eusa Pharma	\$640.6 million	\$121 million	NA	London, United Kingdom	Private Company	Branded Pharma	Small Molecules	Oncology
800	NA	NA	Vland Biotech	\$639.8 million	\$171 million	\$23 million	Shandong Province, China	Public Company	Animal Health	Biologics	Animal Health

Pharma 1000: Ranks 801 to 825

Va	Value Rank			Value		D . (")					Land Thomas Co.
2021	2020	2018 Name		Estimate lov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
801	480	416 Adaptimm	une \$6	639.6 million	\$6 million	-\$150 million	Cambridge and Oxford, UK	Public Company	Biotechnology	Cell Therapy	Oncology
802	461	675 KUP	\$6	538.6 million	\$136 million	\$26 million	South Korea	Public Company	Generics - Branded	Small Molecules	Broad
803	647	NA Ji Yao Holo	ling \$6	634.6 million	\$9.6 billion	-\$4 million	Jilin Province, China	Public Company	Generics - China	Small Molecules	Broad
804	536	868 Adimmune	\$6	633.4 million	\$55 million	-\$5.2 million	Taiwan	Public Company	Biotechnology	Vaccines	Vaccines
805	641	1057 Farmigea	\$6	632.2 million	\$120 million	NA	Italy, Other	Private Company	Branded Pharma	Small Molecules	Ophthalmology
806	708	528 Basilea	\$	628 million	\$122 million	-\$37 million	Basel, Switzerland	Public Company	Branded Pharma	Small Molecules	Anti-Infectives
807	NA	NA MiNK Ther	apeutics \$6	524.4 million	NA	-\$12 million	New York Area, US	Public Company	Biotechnology	Cell Therapy	Oncology
808	NA	NA Frontier Bio	technologies \$6	622.5 million	\$9 million	-\$40 million	Jiangsu Province, China	Public Company	Biotechnology	Biologics	Virology
809	580	NA Arcturus T	nerapeutics \$6	619.1 million	\$9 million	-\$162 million	San Diego, US	Public Company	Biotechnology	Nucleic Acids	Rare Disease
810	526	411 Pharmicell	\$6	617.8 million	\$24 million	-\$6.1 million	South Korea	Public Company	Biotechnology	Cell Therapy	Cardiometabolic
811	NA	NA Cellid, Co.	\$6	617.8 million	\$1 million	-\$6.3 million	South Korea	Public Company	Biotechnology	Biologics	Oncology
812	819	936 Syndax Pha	armaceuticals \$6	616.5 million	\$2 million	-\$89 million	Boston Area, US	Public Company	Biotechnology	Small Molecules	Oncology
813	674	842 Fatro	\$6	616.1 million	\$117 million	NA	Milan, Italy	Private Company	Animal Health	Small Molecules	Animal Health
814	570	NA Takata Pha	rmaceutical \$6	613.1 million	\$229 million	NA	Japan, Other	Private Company	Branded Pharma	Small Molecules	Broad
815	254	NA Immunova	nt \$6	610.7 million	NA	-\$111 million	New York Area, US	Public Company	Biotechnology	Small Molecules	Immunology
816	NA	NA Kronos Bio	\$6	609.9 million	NA	-\$96 million	Bay Area, US	Public Company	Biotechnology	Small Molecules	Oncology
817	868	428 Jiaying Pha	rmaceutical \$6	606.9 million	\$92 million	\$10 million	Guangdong Province, China	Public Company	Generics - China	Small Molecules	Broad
818	862	452 Eagle Phar	ma \$6	603.7 million	\$189 million	\$33 million	New York Area, US	Public Company	Branded Pharma	Small Molecules	Oncology
819	693	NA Acme Phar	maceuticals \$6	602.4 million	\$225 million	NA	Bangladesh	Private Company	Generics - Branded	Small Molecules	Broad
820	1193	NA Evelo Bioso	iences \$6	602.3 million	NA	-\$114 million	Cambridge, MA	Public Company	Biotechnology	Biologics	Oncology
821	1164	569 Vanda Pha	rma \$6	602.2 million	\$268 million	\$47 million	Washington DC Area, US	Public Company	Branded Pharma	Small Molecules	Rare Disease
822	1044	693 Formycon	\$6	601.9 million	\$45 million	-\$16 million	Munich Area, Germany	Public Company	Biosimilars	Biologics	Biosimilars
823	774	493 TTY Biopha	arm \$6	600.8 million	\$153 million	\$42 million	Taiwan	Public Company	Generics - Branded	Small Molecules	Broad
824	631	888 Laboratoire	es Brothier \$5	599.8 million	\$224 million	NA	France, Other	Private Company	Generics - Branded	Small Molecules	Broad
825	1156	na ideaya bi	osciences \$5	598.9 million	\$36 million	-\$29 million	Bay Area, US	Public Company	Biotechnology	Small Molecules	Oncology

Pharma 1000: Ranks 826 to 850

Value Rank		Value		D., - 64					1 d T b di -	
2021	2020	2018 Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
826	750	353 Boiron	\$598 million	\$533 million	\$29 million	Lyon, France	Public Company	Branded Pharma	Naturals	ENT
827	NA	NA Point Biopharma	\$597.6 million	NA	NA	US, Other	Public Company	Biotechnology	Radiopharmaceuticals	Oncology
828	640	NA Zdrowie	\$597.6 million	\$223 million	NA	Poland	Private Company	Generics - Branded	Small Molecules	Broad
829	649	361 Lannett	\$596.7 million	\$454 million	\$17 million	Philadelphia Area, US	Public Company	Generics - INN	Small Molecules	Broad
830	NA	NA Easton Biopharmaceuticals	\$596.4 million	\$159 million	\$21 million	Sichuan Province, China	Public Company	Generics - China	Small Molecules	Hospital
831	965	779 Indoco	\$594.1 million	\$190 million	\$36 million	Mumbai, India	Public Company	Generics - Branded	Small Molecules	Broad
832	590	451 Mochida	\$593 million	\$945 million	\$123 million	Tokyo, Japan	Public Company	Branded Pharma	Small Molecules	Cardiometabolic
833	1136	424 Lexicon Pharma	\$590 million	\$0 million	-\$63 million	Texas, US	Public Company	Branded Pharma	Small Molecules	Cardiometabolic
834	601	215 TaiMed Biologics	\$588.2 million	\$20 million	-\$7.2 million	Taiwan	Public Company	Biotechnology	Biologics	Virology
835	NA	NA Bora Pharmaceuticals	\$588.1 million	\$130 million	\$34 million	Taiwan	Public Company	Generics - Branded	Small Molecules	Broad
836	NA	NA Design Therapeutics, Inc.	\$585.9 million	NA	NA	San Diego, US	Public Company	Biotechnology	Small Molecules	Neurology
837	NA	NA Mabpharm Limited	\$583.9 million	\$16 million	-\$30 million	Zhejiang Province, China	Public Company	Biotechnology	Biologics	Respiratory
838	682	467 Maruishi Pharma	\$583.8 million	\$316 million	NA	Osaka, Japan	Private Company	Branded Pharma	Small Molecules	Hospital
839	745	NA PKU HealthCare Corp.	\$581.1 million	\$354 million	\$18 million	China	Public Company	Generics - China	Small Molecules	Broad
840	885	679 Anika Therapeutics	\$579.6 million	\$145 million	\$4.3 million	Boston Area, US	Public Company	Branded Pharma	Biologics	Bone & Osteo
841	666	402 Pharming	\$578.7 million	\$200 million	\$38 million	Netherlands	Public Company	Branded Pharma	Biologics	Rare Disease
842	NA	NA Beacon Pharmaceuticals	\$577.2 million	\$63 million	\$11 million	Bangladesh	Public Company	Generics - Branded	Small Molecules	Broad
843	NA	NA Nucien Pharmaceutical	\$576.8 million	\$125 million	\$21 million	Hunan Province, China	Public Company	Generics - China	Small Molecules	Broad
844	691	NA Farabi Pharma	\$576.2 million	\$215 million	NA	Iran	Private Company	Generics - Branded	Small Molecules	Broad
845	648	901 Laboratoire Renaudin	\$574.7 million	\$214 million	NA	France, Other	Private Company	Generics - Branded	Small Molecules	Broad
846	721	469 Kissei	\$572.3 million	\$627 million	\$31 million	Japan, Other	Public Company	Branded Pharma	Small Molecules	Urology
847	NA	NA Dr. Pfleger	\$571.4 million	\$108 million	NA	Munich Area, Germany	Private Company	Branded Pharma	Small Molecules	Urology
848	1382	NA Fulcrum Therapeutics	\$570.6 million	\$18 million	-\$73 million	Boston Area, US	Public Company	Biotechnology	Small Molecules	Neurology
849	655	NA Prati, Donaduzzi & Cia.	\$568.1 million	\$212 million	NA	Brazil, Other	Private Company	Generics - Branded	Small Molecules	Broad
850	NA	NA Immatics	\$566.1 million	\$35 million	-\$100 million	Germany, Other	Public Company	Biotechnology	Biologics	Oncology

Pharma 1000: Ranks 851 to 875

Value Rank		Value		D. Ci					1 - 1 - 1 - 1 - 2 - 2 - 2	
2021	2020	2018 Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
851	495	185 Helixsmith	\$565.2 million	\$3 million	-\$46 million	South Korea	Public Company	Biotechnology	Cell Therapy	Pain
852	915	733 HLS Therapeutics	\$563.7 million	\$59 million	\$22 million	Toronto Area, Canada	Public Company	Branded Pharma	Small Molecules	Mature Products
853	872	1091 Silence Therapeutics	\$562.8 million	\$14 million	-\$53 million	London, United Kingdom	Public Company	Biotechnology	Nucleic Acids	Hematology
854	460	574 GNI Group	\$560.1 million	\$107 million	\$24 million	Tokyo, Japan	Public Company	Branded Pharma	Small Molecules	Respiratory
855	662	NA Kocak Farma	\$560.1 million	\$209 million	NA	Turkey	Private Company	Branded Pharma	Small Molecules	Broad
856	768	688 DEMO	\$560 million	\$209 million	NA	Greece	Private Company	Generics - Branded	Small Molecules	Broad
857	1165	1122 Affimed	\$558.6 million	\$51 million	-\$41 million	Hessen, Germany	Public Company	Biotechnology	Biologics	Oncology
858	NA	NA Centessa Pharmaceuticals	\$557.6 million	NA	NA	London, United Kingdom	Public Company	Biotechnology	Small Molecules	Kidney
859	1028	1177 ABIVAX	\$555.4 million	NA	-\$59 million	Paris, France	Public Company	Biotechnology	Vaccines	Vaccines
860	754	787 Deva Holding	\$553.1 million	\$240 million	\$90 million	Turkey	Public Company	Generics - Branded	Small Molecules	Broad
861	724	437 Indofarma	\$550.3 million	\$146 million	\$6.9 million	Indonesia	Public Company	Generics - Branded	Small Molecules	Broad
862	1177	930 Avadel Pharmaceuticals	\$550.1 million	NA	-\$64 million	Ireland	Public Company	Branded Pharma	Small Molecules	Neurology
863	NA	NA 4D Molecular Therapeutics	\$550 million	\$23 million	-\$51 million	Bay Area, US	Public Company	Biotechnology	Gene Therapy	Ophthalmology
864	457	494 II-Yang Pharm.	\$549.4 million	\$312 million	\$42 million	South Korea	Public Company	Generics - Branded	Small Molecules	Broad
865	1439	NA Gritstone Oncology	\$546.9 million	\$46 million	-\$66 million	Bay Area, US	Public Company	Biotechnology	Biologics	Oncology
866	778	735 HAL Allergy	\$546 million	\$84 million	NA	Netherlands	Private Company	Branded Pharma	Biologics	Allergy
867	1339	NA Crown Laboratories	\$546 million	\$NA	NA		Private Company	Branded Pharma	Small Molecules	Dermatology
868	504	470 Epizyme	\$545.1 million	\$33 million	-\$231 million	Boston Area, US	Public Company	Biotechnology	Small Molecules	Oncology
869	567	490 Beijing Beilu Pharma	\$543.1 million	\$137 million	\$28 million	Beijing, China	Public Company	Generics - China	Small Molecules	Broad
870	903	NA Qianjiang Pharmaceutical	\$542.7 million	\$97 million	\$4.4 million	Hubei Province, China	Public Company	Generics - China	Small Molecules	Broad
871	920	472 Adcock Ingram	\$537.8 million	\$545 million	\$73 million	South Africa	Public Company	Generics - Branded	Small Molecules	Broad
872	685	NA Exela Pharma	\$536 million	\$200 million	NA	North Carolina, US	Private Company	Generics - Branded	Small Molecules	Broad
873	NA	NA HBT Labs	\$536 million	\$200 million	NA	Los Angeles, US	Private Company	Generics - INN	Small Molecules	Broad
874	686	NA Nippon Zoki	\$535.1 million	\$200 million	NA	Osaka, Japan	Private Company	Generics - Branded	Small Molecules	Broad
875	831	658 Fengyuan Pharma	\$534.7 million	\$545 million	\$31 million	Anhui Province, China	Public Company	Generics - China	Small Molecules	Broad

Pharma 1000: Ranks 876 to 900

Va	alue Rai	nk	Value		D (1)					1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
2021	2020	2018 Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
876	652	NA Wohua Pharma	\$531.9 million	\$150 million	\$33 million	Shandong Province, China	Public Company	Generics - China	Small Molecules	Broad
877	714	803 Eumedica	\$528 million	\$100 million	NA	Belgium	Private Company	Branded Pharma	Small Molecules	Hospital
878	769	749 Newbridge Pharma	\$528 million	\$100 million	NA	United Arab Emirates	Private Company	Branded Pharma	Small Molecules	Neurology
879	795	NA Kyowa Pharma Industry	\$525 million	\$230 mm	NA	Japan, Other	Private Company	Generics - Branded	Small Molecules	Broad
880	839	631 Sopharma	\$524.5 million	\$926 million	\$57 million	Bulgaria	Public Company	Generics - Branded	Small Molecules	Broad
881	NA	NA Connect Biopharma	\$523.7 million	NA	-\$58 million	Jiangsu Province, China	Public Company	Biotechnology	Biologics	Dermatology
882	909	584 BeyondSpring Pharma	\$523.1 million	\$1 million	-\$71 million	New York Area, US	Public Company	Biotechnology	Small Molecules	Oncology
883	923	609 iNtRON Biotechnology	\$523 million	\$29 million	\$9.4 million	South Korea	Public Company	Biotechnology	Small Molecules	Anti-Infectives
884	797	NA Lepu Bio	\$523 million	NA	NA	Shanghai, China	Private Company	Generics - China	Small Molecules	Broad
885	680	436 Jiangsu Sihuan Bio	\$520.7 million	\$60 million	\$0.6 million	Jiangsu Province, China	Public Company	Generics - China	Small Molecules	Broad
886	767	449 Foci Pharmaceutical	\$516.9 million	\$129 million	\$8 million	Gansu Province, China	Public Company	Generics - China	Naturals	Broad
887	711	276 Cisen Pharmaceutical	\$516.2 million	\$587 million	\$65 million	Shandong Province, China	Public Company	Generics - China	Small Molecules	Hospital
888	629	380 SanBio	\$514.4 million	NA	-\$56 million	Tokyo, Japan	Public Company	Biotechnology	Small Molecules	Neurology
889	757	583 Teikoku Seiyaku	\$512.4 million	\$277 million	NA	Japan, Other	Private Company	Branded Pharma	Small Molecules	Pain
890	781	NA Farmfirma Soteks	\$510 million	\$190 million	NA	Russia	Private Company	Generics - Branded	Small Molecules	Broad
891	692	654 Teuto	\$509.2 million	\$190 million	NA	Brazil, Other	Private Company	Generics - Branded	Small Molecules	Broad
892	715	689 Pharmacosmos	\$504.4 million	\$96 million	NA	Copenhagen, Denmark	Private Company	Branded Pharma	Small Molecules	Hematology
893	820	NA Corium	\$504 million	NA	NA	Bay Area, US	Private Company	Branded Pharma	Small Molecules	Neurology
894	672	420 Kai Bao Pharma	\$503.5 million	\$164 million	\$17 million	Shanghai, China	Public Company	Generics - China	Small Molecules	Respiratory
895	852	912 XOMA	\$502.4 million	\$30 million	\$11 million	Bay Area, US	Public Company	Royalty Company	Biologics	Oncology
896	952	605 Rigel Pharmaceuticals	\$501.7 million	\$147 million	-\$8.9 million	Bay Area, US	Public Company	Branded Pharma	Small Molecules	Hematology
897	NA	NA Terapia	\$501.6 million	\$187 million	NA	Romania	Private Company	Generics - Branded	Small Molecules	Broad
898	1107	793 Catalyst Pharmaceuticals	\$500.9 million	\$127 million	\$46 million	Florida, US	Public Company	Branded Pharma	Small Molecules	Rare Disease
899	823	625 Ambiopharm	\$500 million	NA	NA	US, Other	Private Company	Generics - Branded	Small Molecules	Broad
900	NA	NA KOREA PHARMA Co.	\$499.4 million	\$66 million	\$5.9 million	South Korea	Public Company	Generics - Branded	Small Molecules	Broad

Pharma 1000: Ranks 901 to 925

Va	alue Rai	nk		Value		D(1)					1 - 1 - 1 - 1 - 2 - 2 - 2
2021	2020	2018	3 Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
901	1040	NA	La Renon Healthcare	\$499 million	\$77 million	NA	Ahmedabad, India	Private Company	Generics - Branded	Small Molecules	Renal
902	400	712	AnGes	\$497.8 million	NA	-\$134 million	Tokyo, Japan	Public Company	Biotechnology	Nucleic Acids	Rare Disease
903	806	587	DHG Pharma	\$497.7 million	\$181 million	\$44 million	Vietnam	Public Company	Generics - Branded	Small Molecules	Broad
904	NA	NA	Finch Therapeutics	\$497.1 million	\$10 million	-\$53 million	Boston Area, US	Public Company	Biotechnology	Naturals	Anti-Infectives
905	456	NA	Mersana	\$496 million	NA	-\$126 million	Boston Area, US	Public Company	Biotechnology	Biologics	Oncology
906	710	NA	Pharmasyntez	\$495.8 million	\$185 million	NA	Russia	Private Company	Generics - Branded	Small Molecules	Hospital
907	533	511	Dr. Kade	\$494.2 million	\$94 million	NA	Berlin, Germany	Private Company	Branded Pharma	Small Molecules	Gastroenterology
908	678	933	SIFI	\$494.2 million	\$94 million	NA	Italy, Other	Private Company	Generics - Branded	Small Molecules	Broad
909	829	NA	Celon Pharma	\$493.2 million	\$44 million	\$19 million	Poland	Public Company	Biotechnology	Small Molecules	Oncology
910	689	NA	Phathom Pharma	\$492.4 million	NA	-\$154 million	New York Area, US	Public Company	Biotechnology	Small Molecules	Gastroenterology
911	832	NA	kaleo	\$492.2 million	\$125 million	NA	Virginia	Private Company	Branded Pharma	Small Molecules	Allergy
912	934	350	G1 Therapeutics	\$489 million	\$42 million	-\$128 million	North Carolina, US	Public Company	Biotechnology	Small Molecules	Oncology
913	NA	NA	Gracell Biotechnologies	\$487.7 million	NA	-\$46 million	Jiangsu Province, China	Public Company	Biotechnology	Cell Therapy	Oncology
914	NA	NA	CEL-SCI Corporation	\$485.7 million	NA	-\$34 million	Virginia, US	Public Company	Biotechnology	Biologics	Oncology
915	1270	910	CHO Pharma	\$485.6 million	NA	-\$7.5 million	Taiwan	Public Company	Biotechnology	Biologics	Oncology
916	962	502	Ascendis Health	\$482.5 million	\$156 million	-\$2.9 million	South Africa	Public Company	Generics - Branded	Small Molecules	Broad
917	637	297	Komipharm International	\$480.5 million	\$32 million	\$1.1 million	South Korea	Public Company	Animal Health	Small Molecules	Animal Health
918	NA	NA	IO Biotech, Inc.	\$480.1 million	NA	NA	Denmark	Public Company	Biotechnology	Biologics	Oncology
919	840	NA	OM Pharma	\$478.5 million	\$101 million	NA	Zurich, Switzerland	Private Company	Branded Pharma	Biologics	Anti-Infectives
920	NA	NA	Aligos Therapeutics	\$475.4 million	\$4 million	-\$122 million	Bay Area, US	Public Company	Biotechnology	Nucleic Acids	Virology
921	NA	NA	Antengene	\$475 million	\$3 million	-\$70 million	Jiangsu Province, China	Public Company	Biotechnology	Small Molecules	Oncology
922	NA	NA	Shattuck Labs	\$473.5 million	\$2 million	-\$60 million	Texas, US	Public Company	Biotechnology	Small Molecules	Oncology
923	NA	NA	Inventiva	\$473 million	\$7 million	-\$47 million	France, Other	Public Company	Biotechnology	Small Molecules	Hepatology
924	845	662	YungShin Global	\$472.6 million	\$281 million	\$46 million	Taiwan	Public Company	Branded Pharma	Small Molecules	ENT
925	1178	NA	Spero Therapeutics	\$471.4 million	\$18 million	-\$75 million	Cambridge, MA	Public Company	Biotechnology	Small Molecules	Anti-Infectives

Pharma 1000: Ranks 926 to 950

V	alue Rai	nk		Value		D ()					
2021	2020	2018	Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
926	NA	NA	Aerovate Therapeutics	\$471 million	NA	NA	Boston Area, US	Public Company	Biotechnology	Small Molecules	Cardiometabolic
927	311	880	Seres Therapeutics	\$470.4 million	\$30 million	-\$125 million	Boston Area, US	Public Company	Biotechnology	Biologics	Gastroenterology
928	NA	NA	BELLUS Health	\$470.3 million	NA	NA	Quebec, Canada	Public Company	Biotechnology	Small Molecules	Respiratory
929	785	NA	Elpen Pharma	\$470.3 million	\$176 million	NA	Greece	Private Company	Generics - Branded	Small Molecules	Broad
930	826	549	Teyi Pharmaceutical Group	\$469.9 million	\$113 million	\$33 million	Guangdong Province, China	Public Company	Generics - Branded	Small Molecules	Broad
931	1356	NA	Bonus BioGroup	\$468 million	NA	-\$8.7 million	Israel	Public Company	Biotechnology	Small Molecules	Bone
932	849	NA	Ansun Biopharma	\$466 million	NA	NA	San Diego, US	Private Company	Biotechnology	Small Molecules	Virology
933	850	NA	Amlyx	\$464.8 million	NA	NA	Boston Area, US	Private Company	Biotechnology	Small Molecules	Neurology
934	NA	NA	Blue Cross Laboratories	\$463.9 million	\$94 million	\$30.5 million	India, Other	Private Company	Generics - INN	Small Molecules	Generics
935	723	540	Nobel Ilac	\$463.6 million	\$173 million	NA	Turkey	Private Company	Generics - Branded	Small Molecules	Broad
936	786	NA	Petrovax	\$463.3 million	\$173 million	NA	Russia	Private Company	Branded Pharma	Vaccines	Vaccines
937	NA	NA	Ultimovacs ASA	\$463.1 million	NA	-\$14 million	Norway	Public Company	Biotechnology	Biologics	Oncology
938	NA	NA	Landos Biopharma	\$462.9 million	\$18 million	-\$26 million	Virginia, US	Public Company	Biotechnology	Biologics	Immunology
939	174	96	Mallinckrodt	\$461.6 million	\$2.5 billion	\$924 million	London, United Kingdom	Public Company	Branded Pharma	Small Molecules	Rare Disease
940	1005	984	Orion Pharma	\$459.4 million	\$120 million	\$28 million	Bangladesh	Public Company	Generics - Branded	Small Molecules	Generics
941	NA	NA	Greenwich LifeSciences	\$458.1 million	NA	-\$2.8 million	Texas, US	Public Company	Biotechnology	Biologics	Oncology
942	454	957	Compugen	\$456.1 million	\$2 million	-\$37 million	Israel	Public Company	Biotechnology	Small Molecules	Oncology
943	NA	NA	Somerset Therapeutics	\$456 million	\$80 million	NA		Private Company			
944	1098	NA	Provepharm	\$455 million	\$50 million	NA	France, Other	Private Company	Branded Pharma	Small Molecules	Hospital
945	818	582	SIGA Technologies	\$454.8 million	\$56 million	\$22 million	New York Area, US	Public Company	Branded Pharma	Small Molecules	Biodefense
946	NA	NA	Wecome Pharmaceutical	\$454.7 million	\$101 million	\$19 million	Zhejiang Province, China	Public Company	Generics - China	Small Molecules	Broad
947	1482	NA	Neurelis	\$454.1 million	NA	NA	San Diego, US	Private Company	Branded Pharma	Small Molecules	Neurology
948	NA	NA	Prelude Therapeutics	\$453.4 million	NA	-\$87 million	US, Other	Public Company	Biotechnology	Small Molecules	Oncology
949	864	529	Qianjin Pharmaceutical	\$451.9 million	\$565 million	\$67 million	Hubei Province, China	Public Company	Generics - China	Naturals	Broad
950	NA	NA	Foghorn Therapeutics	\$450.5 million	\$1 million	-\$83 million	Boston Area, US	Public Company	Biotechnology	Small Molecules	Oncology

Pharma 1000: Ranks 951 to 975

Va	Value Rank		Value		D(")					1 - 1 - 1 - 1 - 2 - 2 - 2	
2021	2020	2018	B Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
951	1220	NA	Enochian Biosciences	\$449.8 million	NA	-\$23 million	Los Angeles, US	Public Company	Biotechnology	Cell Therapy	Virology
952	727	614	Laboratoires Genévrier	\$448.8 million	\$85 million	NA	Lyon, France	Private Company	Branded Pharma	Small Molecules	Dermatology
953	1234	900	Summit Therapeutics	\$448 million	\$1 million	-\$67 million	Boston Area, US	Public Company	Biotechnology	Small Molecules	Neurology
954	744	374	Tibet Weixinkang Medicine	\$444.6 million	\$155 million	\$17 million	Tibet, China	Public Company	Generics - China	Naturals	Broad
955	1407	1202	Vivoryon Therapeutics	\$444.6 million	NA	-\$12 million	Germany, Other	Public Company	Biotechnology	Small Molecules	Neurology
956	742	598	Handok	\$443.5 million	\$449 million	\$43 million	South Korea	Public Company	Generics - Branded	Small Molecules	Broad
957	720	450	Cellectis	\$442.9 million	\$70 million	-\$118 million	Paris, France	Public Company	Biotechnology	Cell Therapy	Oncology
958	899	505	Caregen	\$442.3 million	\$55 million	\$31 million	South Korea	Public Company	Biotechnology	Cell Therapy	Dermatology
959	NA	NA	Philogen	\$441.3 million	\$7 million	-\$16 million	Rome, Italy	Public Company	Biotechnology	Biologics	Oncology
960	NA	NA	Vor Biopharma Inc.	\$439.6 million	NA	-\$58 million	Boston Area, US	Public Company	Biotechnology	Cell Therapy	Oncology
961	NA	NA	Pyxis Oncology	\$439.4 million	NA	-\$49 million	Boston Area, US	Public Company	Biotechnology	Biologics	Oncology
962	751	840	Nephron Pharma	\$438.7 million	\$164 million	NA	US, Other	Private Company	Generics - INN	Small Molecules	Broad
963	NA	NA	Hyloris Pharmaceuticals SA	\$438.4 million	\$1 million	-\$4.1 million	Belgium	Public Company	Branded Pharma	Small Molecules	Hospital
964	888	621	Huasun Technology Group	\$438 million	\$120 million	\$11 million	Sichuan Province, China	Public Company	Generics - Branded	Small Molecules	Broad
965	861	751	Lianhuan Pharma	\$437.4 million	\$247 million	\$28 million	Jiangsu Province, China	Public Company	Generics - China	Small Molecules	Broad
966	793	699	Taiwan Biotech	\$437.3 million	\$163 million	NA	Taiwan	Private Company	Generics - Branded	Small Molecules	Broad
967	856	454	FangSheng Pharma	\$436.7 million	\$228 million	\$27 million	Hubei Province, China	Public Company	Generics - China	Small Molecules	Broad
968	837	603	Green Cross Cell	\$436.2 million	\$41 million	\$4.8 million	South Korea	Public Company	Branded Pharma	Cell Therapy	Oncology
969	987	820	Paratek	\$432.1 million	\$104 million	-\$33 million	Boston Area, US	Public Company	Branded Pharma	Small Molecules	Anti-Infectives
970	NA	NA	Ever Supreme Bio Technology	\$431.9 million	\$7 million	-\$1.6 million	Taiwan	Public Company	Biotechnology	Gene Therapy	Cardiometabolic
971	791	503	Sito Bio	\$431.9 million	\$166 million	\$33 million	Shandong Province, China	Public Company	Generics - China	Small Molecules	Broad
972	NA	NA	Enzychem Lifesciences	\$429.9 million	\$17 million	-\$18 million	South Korea	Public Company	Biotechnology	Small Molecules	Oncology
973	NA	NA	Synairgen	\$429.3 million	NA	-\$71 million	Uk, Other	Public Company	Biotechnology	Biologics	Respiratory
974	1471	1129	Curis	\$428 million	\$10 million	-\$30 million	Boston Area, US	Public Company	Biotechnology	Biologics	Oncology
975	796	774	JGL	\$425.3 million	\$159 million	NA	Croatia	Private Company	Generics - Branded	Small Molecules	Broad

Pharma 1000: Ranks 976 to 1000

Va	alue Rai	nk	Value		D (")					
2021	2020	2018 Name	Estimate (Nov 5, 2021)	Revenue	Profit (EBITDA)	Location	Company Type	Sector	Lead Modality	Lead Therapeutic Area
976	1218	1068 ProQR	\$423.9 million	-\$7 million	-\$68 million	Netherlands	Public Company	Biotechnology	Small Molecules	Rare Disease
977	752	852 CCM Duopharma Biotech	\$422.6 million	\$142 million	\$27 million	Malaysia	Public Company	Generics - Branded	Small Molecules	Broad
978	683	NA Currax Pharma	\$422.4 million	\$80 million	NA	New York Area, US	Private Company	Branded Pharma	Small Molecules	Cardiometabolic
979	790	750 Saol Therapeutics	\$422.4 million	\$80 million	NA	Atlanta, US	Private Company	Branded Pharma	Biologics	Rare Disease
980	926	608 Yisheng Pharma	\$422.3 million	\$140 million	\$21 million	Jilin Province, China	Public Company	Generics - China	Naturals	Broad
981	na	NA Bioprojet	\$420 million	\$80 million	NA	Paris, France	Private Company	Branded Pharma	Small Molecules	Neurology
982	NA	NA Golden Biotechnology	\$419.9 million	\$3 million	-\$14 million	Taiwan	Public Company	Branded Pharma	Small Molecules	Broad
983	NA	NA Taysha Gene Therapies	\$419.6 million	NA	NA	Texas, US	Public Company	Biotechnology	Gene Therapy	Neurology
984	1295	NA Evolus	\$419 million	\$86 million	-\$58 million	Los Angeles, US	Public Company	Biotechnology	Biologics	Dermatology
985	1112	1024 Aldeyra Therapeutics	\$418.8 million	NA	-\$50 million	Boston Area, US	Public Company	Biotechnology	Small Molecules	Rare Disease
986	898	691 Molecular Partners	\$418.7 million	\$10 million	-\$72 million	Zurich, Switzerland	Public Company	Biotechnology	Biologics	Ophthalmology
987	1175	NA Precision BioSciences	\$418.3 million	\$101 million	-\$38 million	North Carolina, US	Public Company	Biotechnology	Gene Editing	Oncology
988	904	NA Highland Therapeutics	\$418 million	NA	NA	Toronto Area, Canada	Private Company	Branded Pharma	Small Molecules	Psychiatry
989	1018	NA OliX Pharma	\$417.2 million	\$4 million	-\$16 million	South Korea	Public Company	Biotechnology	Small Molecules	Generics
990	906	742 TOA EIYO	\$416 million	\$131 million	NA	Tokyo, Japan	Private Company	Branded Pharma	Small Molecules	Cardiometabolic
991	859	845 Reig Jofre	\$415.3 million	\$274 million	\$26 million	Barcelona, Spain	Public Company	Generics - Branded	Small Molecules	Broad
992	NA	NA Dyno Therapeutics	\$415 million	NA	NA	Boston Area, US	Private Company	Biotechnology	Gene Therapy	Hepatology
993	597	696 Binex	\$414.8 million	\$114 million	\$16 million	South Korea	Public Company	Branded Pharma	Small Molecules	Other
994	NA	NA Warrant Pharmaceutical	\$414.3 million	\$174 million	\$29 million	Hunan Province, China	Public Company	Generics - China	Small Molecules	Broad
995	933	618 Furui	\$414.2 million	\$132 million	\$38 million	Beijing, China	Public Company	Generics - China	Small Molecules	Hepatology
996	1034	NA Prevail Therapeutics	\$412.5 million	\$187 million	\$22 million	New York Area, US	Public Company	Biotechnology	Gene Therapy	Neurology
997	756	NA SOHO Global Healthcare	\$410.4 million	\$373 million	\$20 million	Indonesia	Public Company	Generics - Branded	Small Molecules	Broad
998	NA	NA Faran	\$408.3 million	\$77 million	NA	Greece	Private Company	Branded Pharma	Small Molecules	Broad
999	1000	591 Shapuaisi Pharma	\$406.6 million	\$92 million	\$10 million	Zhejiang Province, China	Public Company	Generics - China	Small Molecules	Broad
1000	779	489 Hansen Pharm	\$406 million	\$136 million	\$23 million	Hubei Province, China	Public Company	Generics - China	Small Molecules	Broad



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We are known for:

Deep Relationships

We have strong personal relationships across the pharmaceutical and healthcare sectors.

Operating Perspective

Many of our senior colleagues come from industry and bring decades of experience.

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Torreya is known as a firm that gets tough deals done. Our team is skilled in highly structured transactions.

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Our healthcare focus spans pharma, biotech, bioproduction, pharma services, physician services and HCIT.



Representative Transaction Advisory Roles



Growth Equity, Structured Financings & Venture Raises





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Sale to

HEMMO PHARMACEUTICALS We Understand Peptides

Sale of 100%

Torreya: Active Global Presence With 50 Professionals Focused on the Pharma and Life Sciences Sector



- 32 people based in New York
- 9 people based in London
- 5 people based in Mumbai
- 1 person in Tokyo

- We cover Latin America, South Africa and parts of Asia through affiliate relationships
- 4 people cover the China market from a home base in the United States

Top Investment Banks in Pharma Industry Strategic Deals

Jan 1, 2021 to Sep 7, 2021 by Deal Count and Total Value (Includes Announced, Pending and Closed Transactions)

			Average Deal Size
Advisory Firm	Deal Count	Total Value	(\$mm)
Torreya	15	\$1,052	\$70
Goldman Sachs	10	\$14,794	\$1,479
Centerview	8	\$15,391	\$1,924
Morgan Stanley	7	\$22,618	\$3,231
JP Morgan	7	\$6,832	\$976
Jefferies	7	\$3,021	\$432
Barclays	4	\$3,865	\$966
RBC	4	\$1,264	\$316
SVB Leerink	4	\$648	\$162
Rothschild	3	\$3,371	\$1,124
William Blair	3	\$321	\$107
Evercore	2	\$3,801	\$1,901
Credit Suisse	2	\$3,438	\$1,719
Lazard	2	\$2,539	\$1,270
MTS Health	2	\$876	\$438
Moelis	2	\$737	\$369
Houlihan Lokey	2	\$155	\$78
Danske Bank	1	\$4,700	\$4,700
Guggenheim	1	\$3,636	\$3,636

Source: CapIQ and Torreya calculations. Notes: Transactions are included in the pharmaceutical sector, the OTC sector and pharmaceutical manufacturing. Only transactions larger than \$10mm included. SPAC deals excluded. When multiple advisors are present the deal credit is divided by the number of groups present to apportion deal value. Contingent payments are discounted by 75%.

^{*} Key affiliate partners are Kybora in Africa and MidEast; Novus Capital in Russia; Natixis in China and Korea; Panarea in Latin America; and GCA in Japan.

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Recent Transaction Work

Torreya has has been actively working across the spectrum of the global life sciences sector in recent months.





\$1.5 billion October 2020















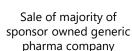


\$104 million May 2021



Acquired by PerkinElmer, Inc.

June 2021



\$80 million May 2020





\$57.5 million February 2020



Private Equity Placement

€44.5 million October 2020



Sale of Noden to

Stanley Capital

\$45 million September 2020





\$30 million

October 2020







^{*} Torreya acted as a principal in this transaction and provided extensive transaction support to iota.

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