PHARMACEUTICALS

15 January 2026

China focuses on large molecules; India on small molecules

- **We hosted Pharma experts with 30+ years of experience in MNCs like Wuxi, Sandoz, GSK, etc., sharing insights mainly about Chinese market**
- **India & China have evolved from servicing at regional level to global level, driven by regulatory improvement and growing talent pool**
- **Wuxi Aptec and Wuxi Biologics are clearly affected in the US by the Biosecure Act, though growing strong in Europe**

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China's Evolving Role: From Foreign-Drug Market to Global Innovation Hub

Today, China is shifting from being a generic producer to an innovation-driven Pharma powerhouse, due to shift on the regulatory front. A lot of Chinese companies were outsourcing newly developed or innovative products across the globe. Large Chinese companies like CSPC, BeiGene, Innovent and Hengrui are expanding pipeline in Oncology, Immunotherapy, Metabolic, among other high value areas. Chinese contribution to global R&D now ranks 2nd to the US across NCEs and NBEs, leading to increased regulatory approvals of innovative products. Previously, there was a 7-8-year lag between the first approval in the US and launch in China. Today, many drugs are launched at par with the US; and in some cases, first in China and later in the US. This has resulted in innovative drugs becoming a major revenue driver and boosting exports.

Chinese companies' in-licensing deals – road to expedite innovation

Chinese biotech firms are accounting for nearly one third of all pharma drug licensing deals, and that's how major innovation is being sourced. Eg. 1) Pfizer struck a deal to license an experimental Cancer treatment from China's 3S Bio for USD 1.25bn upfront and USD 4.8bn, tied to development milestones. 2) GSK will pay USD 12.5bn to a Chinese company for exclusive global rights to develop 12 drugs (one being a COPD drug, GSK's focus area) showcasing how China's research labs are capturing market share in the global pharma and biotech industries and 11 preclinical programs owned by Jiangsu Hengrui Pharma 3) Astrazeneca has signed licensing deals worth USD 13.6bn with 5 Chinese biotechs. These collaborations helped Chinese companies gain global reach and help multinationals fill their development pipelines.

Larger molecules – Global Pharma players diversifying to larger molecules

In the 80s or 90s, small molecules used to be 100% of the pharma companies' portfolio, including the big pharma companies. But today, 60-65% of the portfolio has become Biologics portfolio (large molecules).

Biosimilars – Regulatory pathway is the key for Biosimilar growth

China has a very strong biotech industry where domestic companies are focusing heavily on the biosimilars development and cost containment. So far, some of the Indian pharma companies are participating in volume-based procurement in small molecules. Biosimilars have been kept out but given the kind of savings generated in small molecules, biosimilars will likely be entering the VPP process within this year or next year. This would be with the help of Chinese government by reducing healthcare cost; particularly for high-priced biologics, making them attractive for public health insurance system.

Regulatory support – NMPA streamlined approvals with global standards

India and China are witnessing healthy growth opportunities for Biosimilars, driven by common parts like cost pressures, aging population, and the expiration of biologic patents. For China, the regulator NMPA has streamlined the approval process for Biosimilars, allowing China to adopt global standards and accelerate market entry for Biosimilars.

Next decade – Biologics to become affordable

The market for Biosimilars is expected to expand for India as well as China and China will make a key move in increasing the access to affordable biologics worldwide. So, next decade should see Indian and Chinese companies dominating the biosimilar sector as they expand on the western markets and diversify portfolios across the high-value therapeutic areas like Oncology, among others.

India & China CDMO/CRO in global Pharma – equal cost advantage

India and China, both evolved from being regional service models to global models in the Pharma industry. India and China have become key geographies for global demand for the outsourcing of drugs, primarily due to factors like cost advantage where the two offer cost-effective labour, manufacturing capabilities and clinical trials, followed by the adoption of global standards by both the regions' regulators like CDSCO for India and NMPA for China, for smooth regulatory approval process.

Biosecure Act – threat from Wuxi drove generation

Wuxi had become a major competitor to US firms in being first to market, and despite partnering with US companies, was still seen as a Chinese company leading launches. Other big Chinese companies like Henlius Biotech has emerged as a major Chinese player developing biosimilars and monoclonal antibodies for global markets.

Impact Of Biosecure Act – Most Chinese CDMO players are affected

Companies like Wuxi Aptech are heavily affected, as the US was a major market, though they also have strong business in Europe and other regions. Geopolitical tensions may continue to impact Chinese biotech companies, as well as CROs and CDMOs, under the Biosecure Act. In terms of API, FDF manufacturing, contract manufacturing system coming out of India may not be considered as threat for the US companies.

Biologics Manufacturing - China to be a global leader by 2030

In 2007, no Indian company could handle NCE development — not only due to capability gaps but also given the regulatory and bureaucratic hurdles such as import licenses and clearances. Therefore, China has a clear headstart in NCE development, which later expanded into NBE and biologics development, supported by strong government focus under the name China 2025 policy. They also have a policy which they call it as China 2030 policy to become global leader in biologics manufacturing. China is well ahead in biologics infrastructure, where 20,000-litre culture tanks are standard, and capacities have gone up to 100,000 litres; while many Indian companies are still working towards 2,500–5,000-litre tanks. This biologics infrastructure can be easily diverted from innovative biologics to biosimilars, giving China a structural advantage.

Small Molecules - India dominates in small molecules

India’s focus has largely remained on generics, with efforts in innovation starting only recently through select CROs and CDMOs, and India still has a long way to go to catch up with China on innovation. India dominates the finished generic manufacturing, while China is significantly ahead in biosimilars and biologics manufacturing scale, driven by infrastructure, policy support, and innovation focus.

Role of AI in Pharma – China has adopted AI quite early

Role of AI has now expanded from discovering to understanding how the clinical trials should be conducted — to manufacturing and supply chain control as well. So now, the impact of AI is no longer restricted to one part of the pharma industry’s value chain but is encompassing the complete value chain. Chinese players are often early AI adopters, leveraging it across the pharma value chain to gain competitive edge.

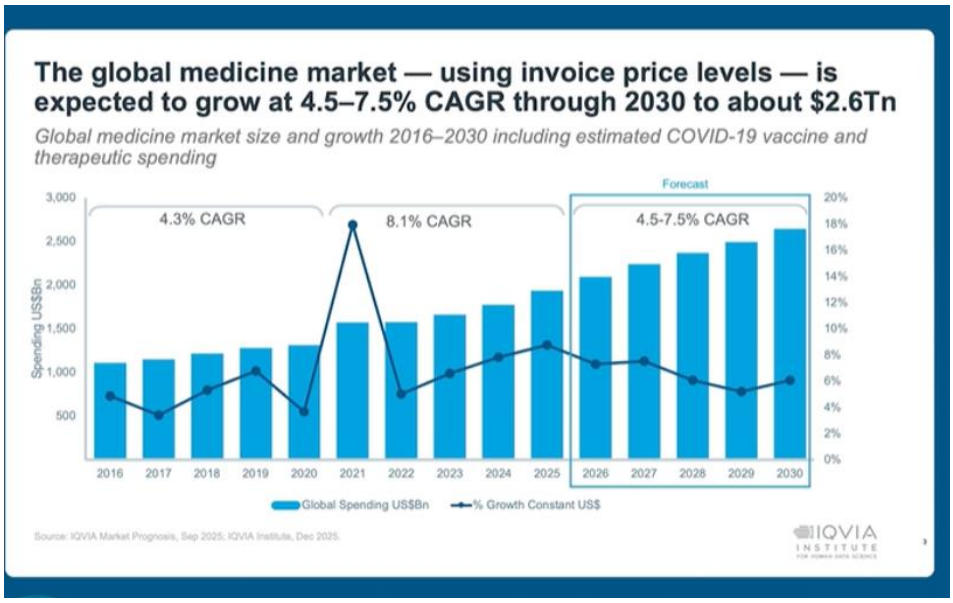
Peptide Manufacturing – Europe manufacturers have historical advantage

European suppliers have a historical advantage, having been in the peptide manufacturing space for a longer time. In some areas, Chinese companies may still lag. While Chinese suppliers may initially lag in certain aspects vs Europe, they are quick learners. Once they catch up, their production levels are hard to match in the US or Europe.

We also attended the Pre JP Morgan China Virtual Summit organised by the IQVIA. Key takeaways:

Global Pharma market size is expected to increase to USD 2.6trn by 2030E vs 1.5-1.9 trn in 2025

Fig 1 – Global Pharma market expected to grow



Source: Company, BOBCAPS Research

The said USD 2.6 trn would be achieved through five discussed points:

1- Steady rise in the demand for therapeutics by the aging population globally.

2- Earlier diagnosis of many cancers and prolonged treatment cycles for cancer.

3- Increasing prevalence of many diseases like Cancer, Alzheimer's and degenerative condition.

4- Willingness by payers to expand access to medicines as economics grow and the relative amount spent on healthcare increases.

By 2030, over the five years, Pharma market will likely see the largest amount of sales based on generic or biosimilar competition and well over USD 200 bn of reduced sales from many of the current leading drugs as they lose patent protection.

CY2030 – global landscape

1- By 2030, 375 novel active substances to be launched taking the total number of drugs launches to over 800

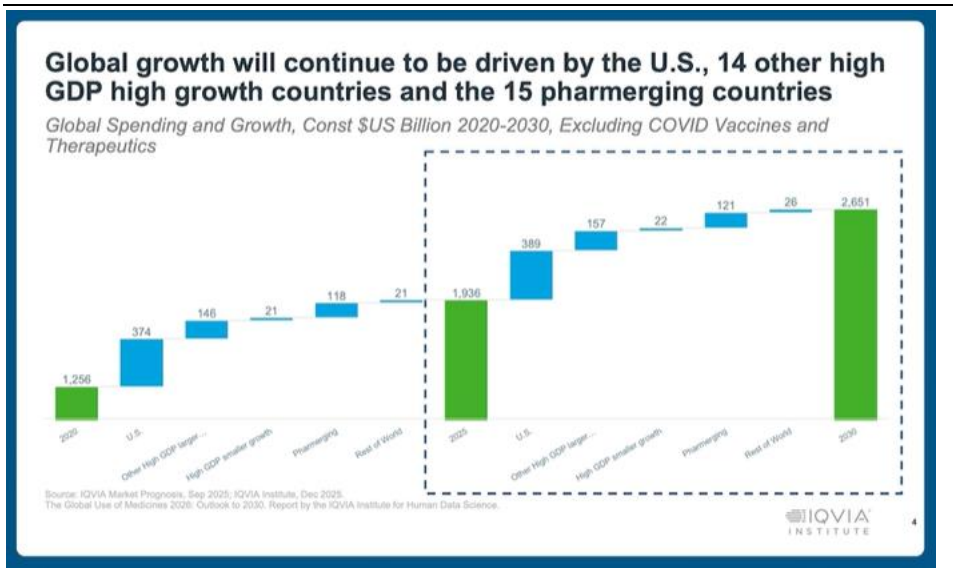
2- China will be launching many drugs developed locally and available in the China market by 2030.

3- Gap between the number of new drugs launched in the US and that in Europe will remain significant; albeit smaller than the current gap.

4- About 40% of the new launches will be in Oncology and multiple Obesity and Cardio-metabolic treatments.

5- More Cell and Gene therapies available in 2030.

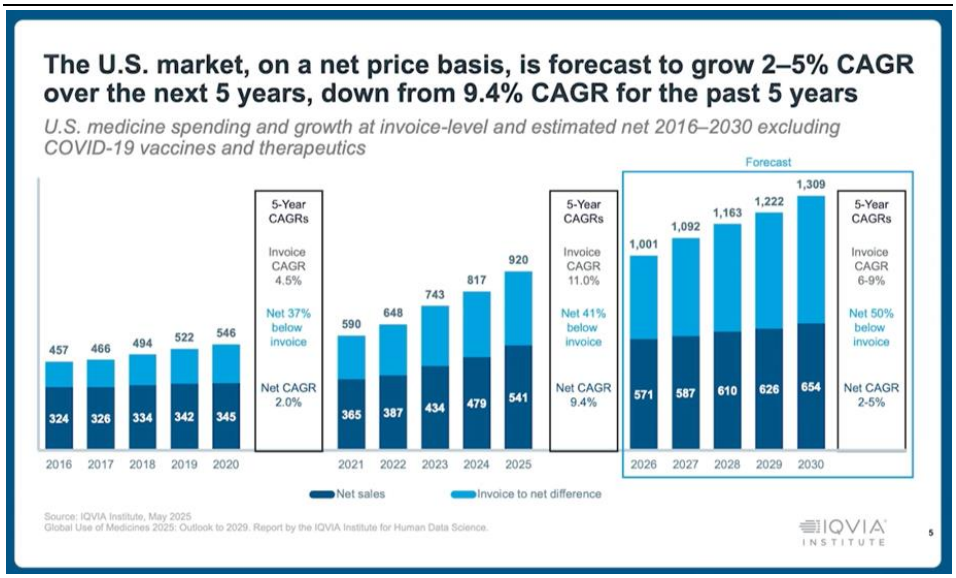
Fig 2 – US to contribute the most to global growth



Source: Company, BOBCAPS Research

Most global growth is expected to come from the U.S., with approximately USD 389 bn in list-price growth—representing about 54% of total global growth. There are another 14 countries with GDP over USD 50k per year that will have expanded their markets by 2bn each, contributing to ~USD 157 bn of growth. There are another 15 companies with GDP under 50k per year that will expand markets by USD 2bn each, over the 5-year period. These are called Pharmerging markets, which includes countries like China, Turkey, Brazil and India.

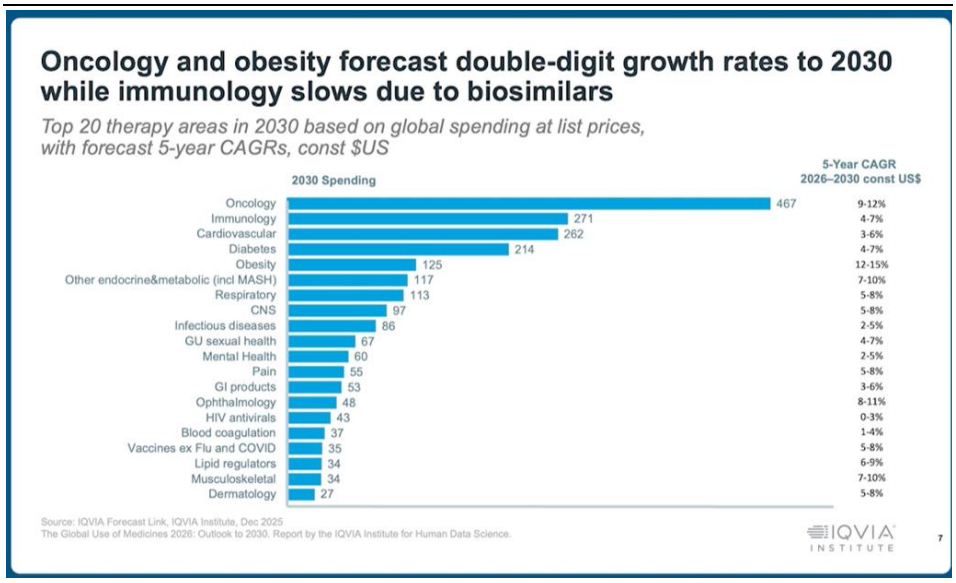
Fig 3 – US market growth CAGR to lower to 2% over the next 5 years from current ~7-9%



Source: Company, BOBCAPS Research

Overall, US market is expected to grow at a CAGR of 2-5% since 2025 vs 9.4% CAGR that was seen five years prior. The US growth rate is expected to lower as 1) new drug launches bring more treatment options 2) period of policy uncertainty due to a) imposition of tariff b) implementation of MFN pricing c) decrease in inflation d) reduction in federal support for Medicad and affordable care act. Thus, US is still expected to provide the most attractive commercial opportunity for pharma manufacturers but will be buffeted by major patent expiries including Pembrolizumab (Keytruda).

Fig 4 – Oncology tops the list in the sending list



Source: Company, BOBCAPS Research

Oncology therapy is expected to remain the largest in the Pharma sector and is likely to reach USD 467 bn by 2030. This would be driven amidst LoE of Keytruda **(pembrolizumab)**, Opdivo **(nivolumab)**, Ibrance **(palbociclib)** and several others. However, this would be mitigated by the launch of 100 new Oncology drugs in 5 years but fewer immune-Oncology drugs and higher ADC drugs, bispecifics, trispecifics radioligands and Car – T cell therapies for blood cancers. By 2030, in addition, to Oncology, all therapies like Immunology, Cardiovascular and Diabetes would have market size of USD 200 bn. Obesity is expected to be the 5th largest therapy with market size of USD 125bn, driven by 1) more pipeline drugs coming into the market place 2) new forms especially greater use of oral drugs 3) wider payer coverage in private as well and public insurance markets 4) continued demand from the public seeking access to weight loss products.

AI in Pharma– Just the beginning

By 2030, AI is expected to be used in the following:

1) **AI in R&D** to drive efficiencies and new targets would really turbocharge the R&D landscape, bringing more small molecule targets into the clinic, more efficient clinical trial designs and acceleration of development programs. In R&D, focus will be on applying AI in biology in addition to chemistry and small molecules.

2) **In Innovation**, focus will be on integrating the innovation system with AI as an enabler. While this is likely to result in lower costs, many efficiencies from AI may

be offset by higher competitive bar for new drugs. There would also be more targeted therapies, more complex trial protocols and endpoints. Some of that carries higher cost, which will offset some of the efficiencies that the AI-driven approaches will bring.

3) **To accelerate clinical decision-making** on medicine use, with AI supporting physician assessment and prescribing.

4) **Earlier stage disease interception a major focus,** which includes advanced diagnostics at low cost and broader accessibility and interventions that are focused at or even prior to diseases symptoms in a patient.

Greater calls are expected for real world evidence of value and greater evidence of the clinical outcomes and patient benefits from medicines.

Innovation in CHINA – China Emerging as a Global Pharma Innovation Powerhouse

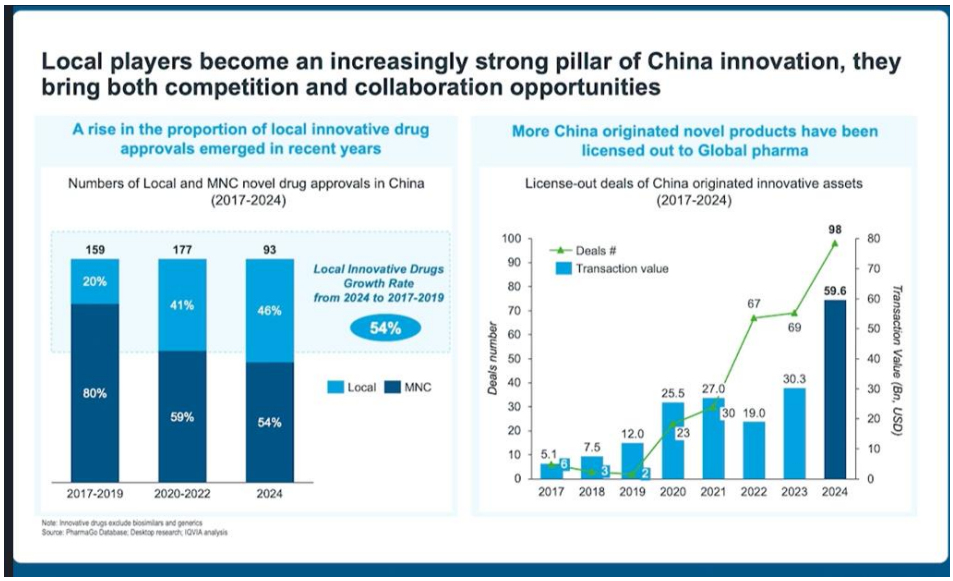
As of 2023, Chinese pharma market is the 2nd largest market globally and is likely to make up somewhere around USD 188 bn from the current USD 17bn.

China 's healthcare expenditure is growing at 10% YoY since 2010 and contributes 7% to the GDP vs 16% for the US, however, Western Europe are ~10-11%.

China's overall trial number is already near ~30% of the global trial percentage, slightly below 35% of the US.

China innovation has been expediting in the last few years, due to: 1) overall Chinese reforms of its clinical trial process 2) rising healthcare expenditure leading to increasing development and allowing global trials to be led in China 3) influx of talent that comes and starts biotech from overseas.

Fig 5 – Share of novel assets launched by MNCs in China declining



Source: Company, BOBCAPS Research

Chinese companies tend to manage the entire value chain in-house, from commercial evaluation through deal-making and clinical trials. Much of China's recent innovation has been driven by reforms in its clinical trial processes and rising healthcare expenditure. This has drawn scientists and funding back to China, while capital markets—particularly in Hong Kong—have opened to pre-revenue, pre-profit biotech companies.

Innovation in China irreplaceable

Dr. Jing (AstraZeneca R&D centre Lead) said that with the significant growth of the overall China pharmaceutical ecosystem, AstraZeneca also grew rapidly in China in terms of the number of pipeline projects that were delivered, and more importantly, increased scientific impact globally that the organization, he is leading will be able to play a very critical role, contributing into the overall scientific ambitions of AstraZeneca globally. With the Biotech, Astrazeneca probably is the most active multinational company having the different licensing acquisition activity in China.

AstraZeneca collaborates not only with 500+ hospitals nationwide but also with academic institutions, universities, and biotechs; aiming to be an active contributor to China's pharmaceutical ecosystem—addressing China-specific medical needs while also translating Chinese innovation into global solutions. Patient enrollment wise, China is a single country that Astrazeneca contributes to around 15 to 20% of the overall entire global enrollment globally. It also has quite a few country investigators that at an international level, are already leading global studies from phase one, phase two to global pivotal studies. So, it is trying to leverage the wisdom, rich experience and the efficiency of the overall China clinical trial system to benefit globally.

Is China an ideal destination for running clinical trials?

AstraZenenca established an R&D centre in China, so they can do clinical trial from the early phase to the later phase, from operations and also, from the brain-driven scientific trials. MNCs can do this given that they have this capability and the resources with the local team on the ground and great talents. But as mentioned, biotechs are not MNCs. So, they lack such kind of resource to establish their local teams in China. Hence, compared to AstraZeneca or others, the biggest challenge for them is distance, and they also don't have local people. They lack knowledge of China's rapidly evolving R&D ecosystem, relying instead on anecdotal success stories. Dr. Mao, a senior executive in the US–China biotech sector emphasises that successful partnerships must be fit for purpose—whether to enable early trial initiation or faster patient recruitment. He notes that more U.S. companies are now conducting early-phase studies in China, not just for recruitment but as part of a long-term development and registration strategy. While the first trial in China can be challenging for inexperienced companies, subsequent trials become significantly easier.

China's competitive edge!

Another speaker, Dr Cheng says competitive advantage lies with China with regard to putting the molecules much easier into the first-in-human studies vs companies in the U.S. can do. This was said in the context that translational clinical trials are to quickly translate or bring the laboratory finding or evidence to clinical finding as early as possible, for validating scientific concept. It is critical for companies to reach a catalyst or inflection point at the earliest as they are limited by financing and funding rounds.

They need this progress to continue being financed and to move their strong scientific ideas into larger clinical development programs. China offers a unique advantage through its overall R&D system, as mentioned by Dr. Hu, including strong government support. The Chinese government has issued regulations to encourage early exploratory programs and allows well-established, science-based institutes and centers to conduct investigator-initiated and exploratory studies based on solid scientific foundations. He says that scientific rationale is the same as anywhere in the world. The advantage lies in the system and processes that are more streamlined. The process and the system have been established to enable and facilitate such kinds of early exploratory studies. So, the process can go very fast.

He believes that moving forward, it will continue to be one of the unique competitive advantages for China doing such clinical trials, because government feels more comfortable when they see more trials done in a professional and safe way. The institute, its administration office and also investigators, feel more confident and learn from the process. They accumulate a lot of experience in running these trials successfully and also, industry sponsors, especially the ones US-based, and also their partner in China, they work together.

Momentum of China biopharmaceutical development is sustainable, and irreplaceable

Dr Mao – says no. China is not going to be replaced by anybody. He highlighted that the key reason China matters is scale — in a global registration pathway, protocols are shaped primarily by US FDA, then EMA, then China's CDE (Center of Drug Evaluation), and sometimes PMDA in Japan. These agencies provide the core regulatory input that leads to a harmonised global protocol, while most other countries are included mainly for patient enrollment. In China, however, the goal is full registration, not just patient access, which makes CDE's recommendations critically important and shows why companies actively seek regulatory advice there; ultimately, this is driven by the market scale and the irreplaceable contribution of Chinese scientists, including overseas Chinese, whose impact on global drug development cannot be substituted.

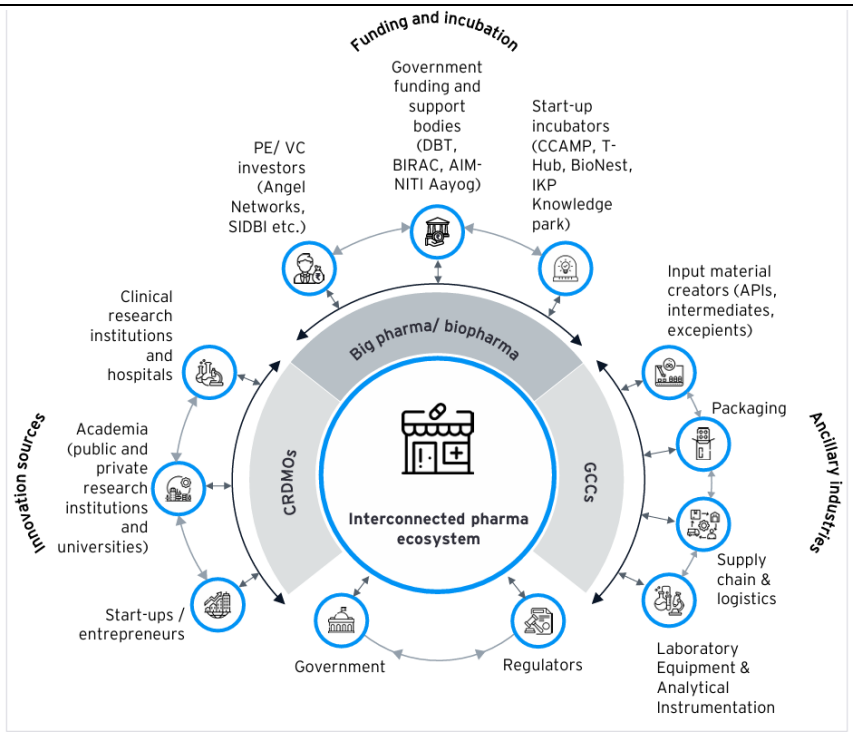
Dr Chen stressed that healthcare should not be driven by politics, emphasising that novel therapies should be developed to help patients globally, regardless of race or nationality, and that everyone deserves equal and timely access to innovation, even if political realities do not always align with that hope. He explained the reason why China is irreplaceable, is because no other country has such a powerful and complete ecosystem for novel drug development, spanning discovery, laboratory research, translation, clinical development, medicare, patient registration, and the people and institutions behind it, which together uniquely enables the full life cycle of innovative medicines.

Dr Jing Hee- says the purpose is to provide solutions for diverse medical needs, driven not only by science but also by economics and culture. This means drug developers must balance data harmonisation with the need for diversified approaches, and in that sense, no country can truly replace another because everyone is on the same boat working towards common objective. She added that China's position as the second-largest pharmaceutical market is now defined not just by size, but also by quality; making it sustainable, even while being realistic about whether the pace of growth in recent years can be maintained.

Innovation at the cusp in India

Indian CRDMOs are moving up the value chain by investing in advanced modalities, digital QA/QC and integrated development pathways. This shifts India's position not just as a manufacturing destination, but as a strategic partner in complex, science-led innovation, underlining the momentum behind CRDMO/CDMO sector's growth in India.

Fig 6 – Interconnected ecosystem to drive value-added growth and innovation



Source: EY report,

India is also venturing into innovative deals as it aims to develop 100 new drugs by 2047. It is believed that the early-stage innovation is no longer the weak link. Support from institutions such as BIRAC, C-CAMP and THSTI has created a strong foundation for startups and translational research and improved access to funding, laboratories and mentorship. Many companies have also realised the need for innovation and are diversifying from pure generic companies to innovative companies, to either protect margins or to increase their margins.

Following are the few innovative deals that have taken place in India Pharma market:

Fig 7 – India's landmark innovative deals

Date	Indian company	inlicensed	Remarks
2022	Cipla	German Biotech Ethris	Co-develop mRNA therapies and set up Cipla RNA GmbH in Germany to accelerate mRNA development
2023	Laurus Labs subsidiary Immuno Act		Received the marketing authorisation approval of the first humanised CD19-targeted Chimeric Antigen Receptor T cell (CAR-T cell) therapy product for relapsed / refractory (r/r) B-cell lymphomas and leukemia in India.
April'2025	Glenmark Pharma	Abbvie	Glenmark JV Ichnos Science received USFDA fast track designation for a first in class trispecific antibody for relapsed / refractory multiple myloma

Source: Company, BOBCAPS Research

In India, Sun Pharma's advance research has a robust pipeline spanning across Biologics and small molecules with focus on different modalities, targeting the high unmet needs in Oncology and Immunology.

Fig 8 – SPARC's pipeline in Biologics and Small Molecules

Source: Company, BOBCAPS Research

Zydus Lifescience is a US and India-focused formulation company and is also venturing towards novel products with a good pipeline across modalities.

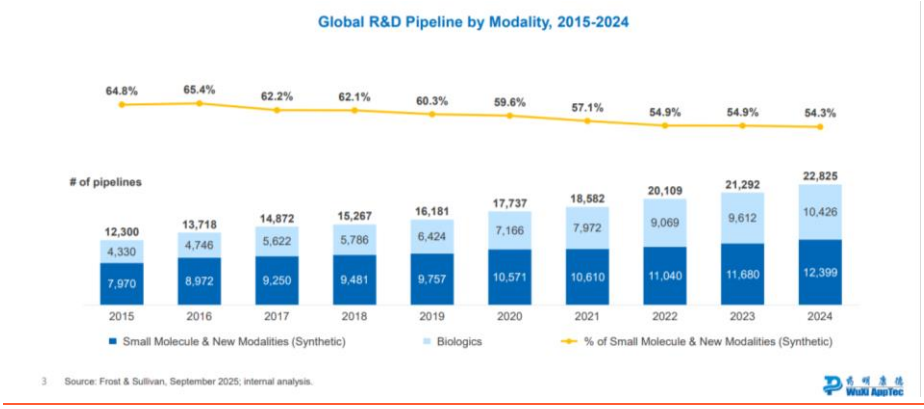
Fig 9 – Zydus Lifescience Research Areas

Major Areas of Research	Product/Candidate
New Chemical Entities (NCEs)	Saroglitazar Mg; Desidustat – Oral HIF-PH Inhibitor for Treating Anemia; Usnoflast – Novel Oral Small-Molecule NLRP3 Inhibitor; BILYPSA
Biologics	Exemptia: World's first biosimilar of Adalimumab; TwinrabTM
Vaccine	ZyCoV-D; VaXiflu

Source: Company, BOBCAPS Research

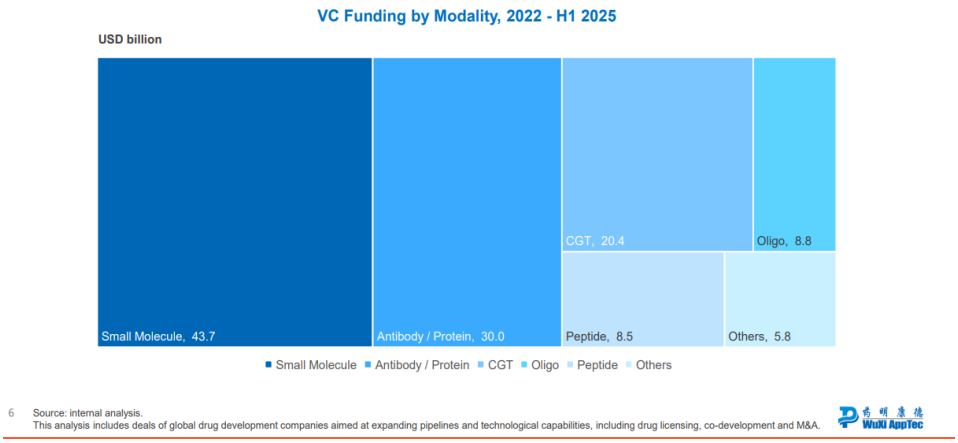
As India is still focusing on small molecules, a lot of R&D is being done globally upon the same receiving global funding easy. And, with rising number of outsourcings in the CDMO, India's CDMO is at a sweet spot given its continued focus on small molecules.

Fig 10 – Though % of small molecules R&D pipeline is declining, it's well above 50%



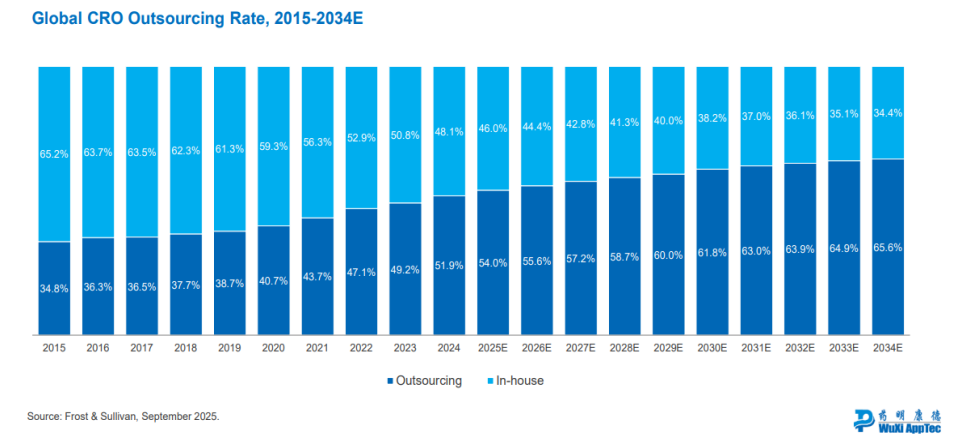
Source: Wuxi Aptec presentation, BOBCAPS Research

Fig 11 – Diversified Modality Demands in Early Stage R&D Investment



Source: Wuxi Aptec presentation, BOBCAPS Research

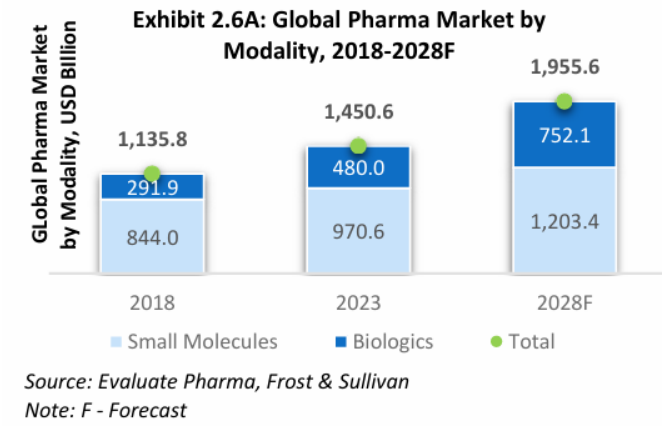
Fig 12 – Global outsourcing market continues to expand with increased innovation, contributions from small companies and diversified Demands



Source: Wuxi Aptec presentation, BOBCAPS Research

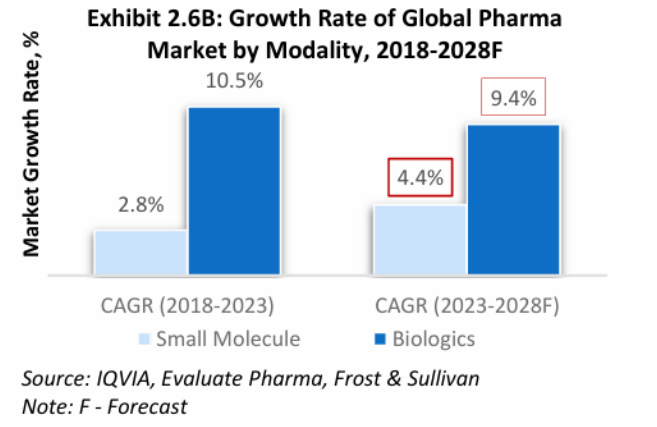
Global Pharma Market by Modality

Fig 13 – Market share of Biologics and Small Molecule



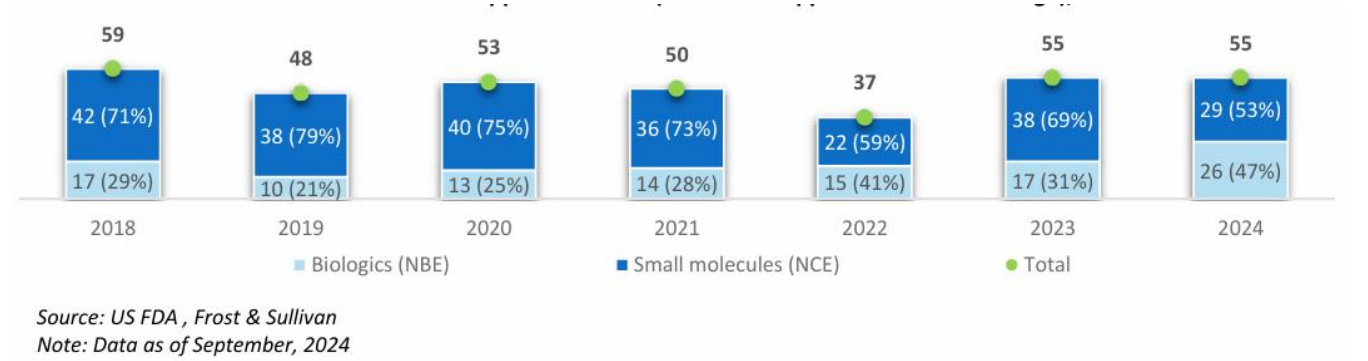
Source: Frost & Sullivan (Anthem Bioscience)

Fig 14 – Growth rate of Biologics and Small Molecule



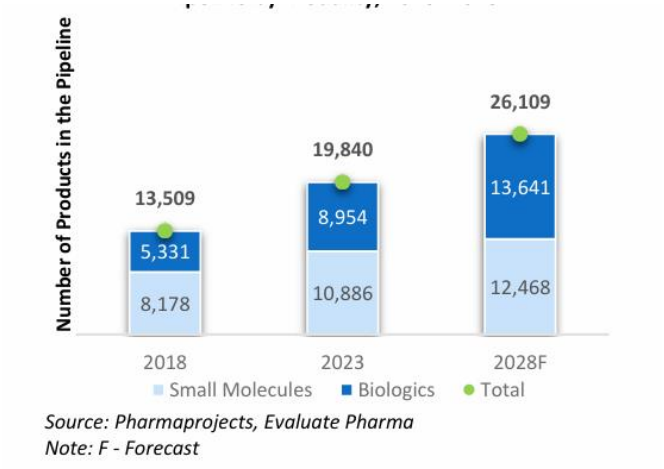
Source: Frost & Sullivan (Anthem Bioscience)

Fig 15 – US NBE and NCE Approval Trends (Number of approvals and Percentage), 2018-2024



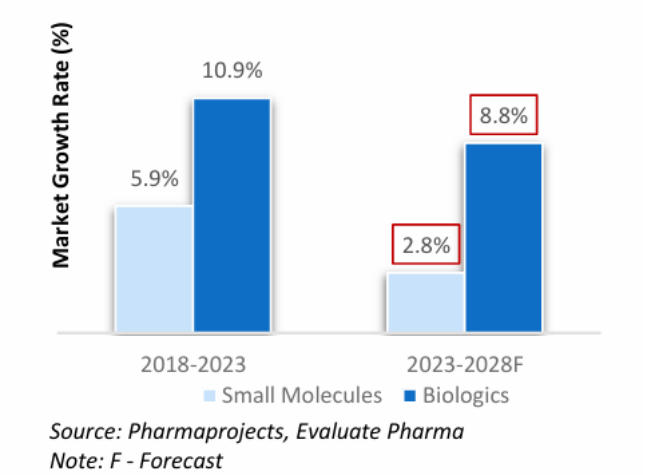
Source: Frost & Sullivan (Anthem Bioscience)

Fig 16 – Global Number of R&D Products in Pipeline by Modality, 2018- 2028



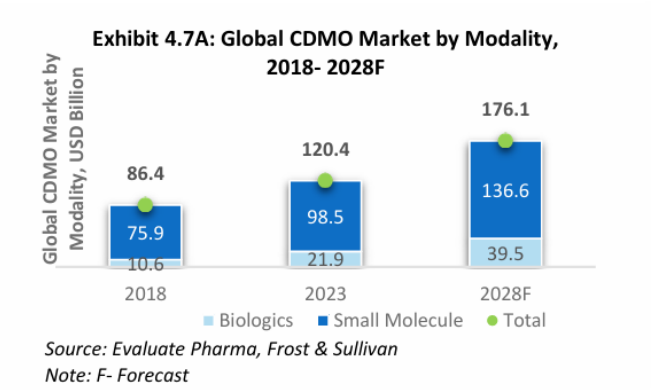
Source: Frost & Sullivan (Anthem Bioscience)

Fig 17 – Growth rate of Global R&D Pipeline by Modality, 2018- 2028F



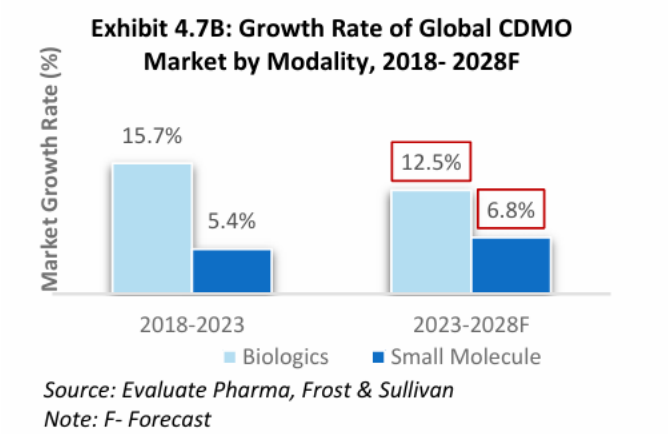
Source: Frost & Sullivan (Anthem Bioscience)

Fig 18 – Market share of Biologics and Small Molecule



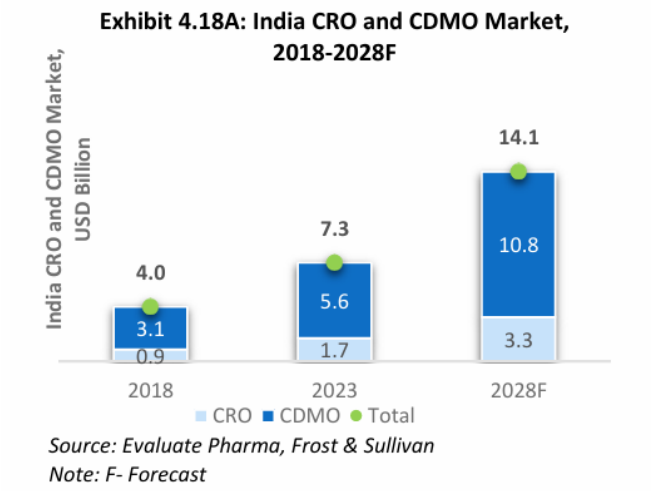
Source: Frost & Sullivan (Anthem Bioscience)

Fig 19 – Growth rate of Biologics and Small Molecule



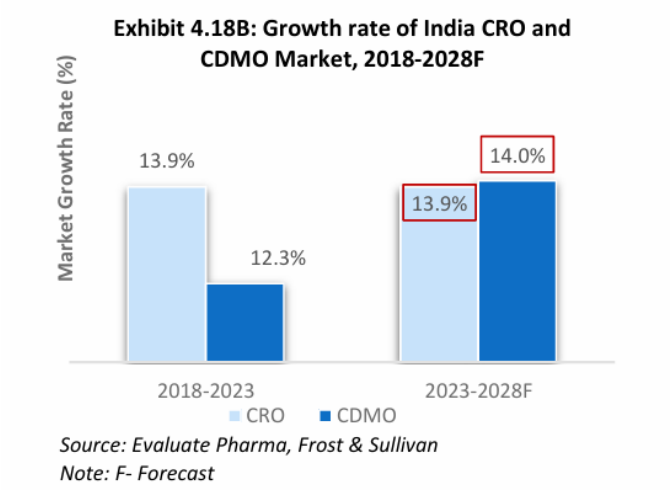
Source: Frost & Sullivan (Anthem Bioscience)

Fig 20 – India CRO & CDMO Market size



Source: Frost & Sullivan (Anthem Bioscience)

Fig 21 – Growth rate of India CRO and CDMO Markets



Source: Frost & Sullivan (Anthem Bioscience)

Fig 22 – Capacity comparison of Indian and Chinese CDMO Companies

Capacities	Wuxi Aptech	Wuxi Biologics	Asymchem Labs	Divis	Laurus	Cohance
Small molecules API	4000 kl		1700 kl	16500 kl	8000 kl	3000 kl
Solid Phase Peptide Synthesizers	41 kl in 2024, expected to increase to 100 kl by 2025		NA	NA	NA	NA
Large molecules		280 Kl expected to reach 500 kl by 2026			250 kl, expected to increase to 400 kl	

Source: Company, BOBCAPS Research

Operational Highlights of the CDMO companies in India

Fig 23 – CDMO companies operational highlights

Particulars	Divi's	Laurus	Cohance	Sai	Anthem
No of molecules commercialised	30 in APIs; Custom Synthesis NA	15 APIs	16 molecules	30 commecrial molecules	14 Commercial Molecules
CDMO/CRO	CDMO	CDMO	CDMO	66% CDMO, 34% CRO	90% CDMO 10% CRO
Top 5 products	Sacubitril Valsarta,lopromide, Valsartan,Naproxen Sodium & Gabapentin	Dolutegravir + Lamivudine + Tenofovir, Lamivudine, Metformin, Tenoforvir Disoproxil +l-Sepiapterin	Mebeverine, Entacapone, 4-Ethyl, 7 Ethyl, 3,6 Dihydro2h pyridine	Bilastine, Dichloro-4-Fluoro, 30 Chloro-5,7Dihydro, Hydroxyoctyl	Rimegepant, 4Bromophenyl, 3 Pyrroline, 5Hydroxy7Azaindole & All E Heptaprenol
Top 5 clients	Novartis, Bayer, MSD, Raybow & MSD Ireland	KRKA DD, Laurus Generics, Pfizer, Airpharma & Kenya Medical Supplies	Boehringer, Ingenus Pharma, Gilead & Lonza	Faes Farma, Abbvie, United Therapeutics, Zoetis Belgium, Bayer AG.	Procos Spa, Catalent, Davos Chem,Kappa Bios & Abbvie
Modalities	Small Molecules, High potent APIs & Peptide Syntesis & Contrast Media	Small Molecules (Human + Animals), ADCs, Cell & Gene therapy, High Potent APIs, Bio Catalysis, Flow Technology	Small Molecules, HPAPI Cytotoxic Drugs, Controlled Substance,ADC, Oligonucleotide & Protien Degraders	NCE Molecules, Peptide, ADC, Oligonucleotide and Lipids	CDMO -Custom Synthesis, Peptides, High Potent manufacturing, fermentation & Oligonucleotides, ADC, RNAi, Lipids, Enzymes, Probiotics
Strategic investment	Unit 3 Kakinada plant for backward integration	USD2mn in Aarvik Therapeutics for ADC drugs	NJ Bio invested USD 10 mn cGMP bioconjugation suite expansion underway at Princeton to scale U.S. bioconjugation capabilities.	Peptides - clinical + Development (both GLP + non GLP)	Peptides (biosimilars Peptides)
Capacities	16500 kl	8000 kl in reactors	3000 kl	750 kl	270 kl
Fermentation capcity	NA	240 kl	NA	NA	142 kl
No of CDMO Units	3 units	9 sites	5 sites	Unit 2 & Unit 4	Unit 2 &3
Gross block FY25 Rs mn	7830	5764	10875	15661	12701
Asset Turn (x)	1.2	0.9	0.9	1.6	1.5
CDMO as a % of total sales	56%	30%	41%	66%	90%
Scientist	700	1428	500	2605	1045
PHDs	NA	NA	15% of Scientist	340	57% PHDs +Masters
Backward integration in CDMO	Yes	No	Yes in ADC through NJ	No	Yes, doing fermentation for peptides
World leadership	10 generic APIs	ARV & Onco	Top 3 player in 8 out of 10 APIs	NA	NA

Source: Company, BOBCAPS Research

Asian Pharmaceutical Companies Valuation Metrics

Fig 24 – Korean Pharmaceutical Companies

Name	CDMO (Yes/No)	Mkt Cap (KRW)	EV/EBITDA (x)	EV/EBITDA FY1 (x)	EV/EBITDA FY2 (x)	P/E (x)	P/E FY1 (x)	P/E FY2 (x)	P/FCF (x)	Dividend Yield (%)
Median		2593921	19.35	15.36	12.24	31.61	22.42	16.72	64.37	1.43
SAMSUNG BIOLOGICS CO LTD	Yes	88878625	32.80	31.36	28.46	55.69	54.06	47.09	112.28	-
CELLTRION INC	Yes	48848244	42.82	34.04	25.70	65.70	54.91	37.59	77.38	0.35
SSY GROUP LTD	Yes	1688055	9.20	13.65	11.59	13.81	14.81	12.17	103.13	4.71
DAEWOONG PHARMACEUTICAL CO	Yes	1893246	10.46	10.42	9.63	20.18	12.82	11.45	-	0.37
SAM CHUN DANG PHARM CO LTD	Yes	5911282	467.60	-	-	-	-	-	-	-
PHARMARESEARCH CO LTD	No	4587029	19.35	17.08	12.89	30.32	26.44	19.61	36.55	-
ST PHARM CO LTD	Yes	2593921	32.15	30.77	24.71	69.28	53.38	40.27	138.02	0.40
GREEN CROSS CORP	Yes	1897893	21.29	19.74	16.90	32.90	30.11	34.54	51.37	0.92
LOTUS PHARMACEUTICAL CO LTD	Yes	3715048	12.63	11.06	7.12	16.47	15.93	10.99	10.61	1.94
SAWAI GROUP HOLDINGS CO LTD	No	2565843	17.63	8.96	7.36	2135.71	18.39	13.83	44.71	2.26
TOWA PHARMACEUTICAL CO LTD	Yes	1732152	8.37	7.76	7.41	8.63	10.21	9.12	-	2.21

Source: Bloomberg

Fig 25 – Japan Pharma Companies

Name	CDMO (Yes/No)	Mkt Cap (KRW)	EV/EBITDA (x)	EV/EBITDA FY1 (x)	EV/EBITDA FY2 (x)	P/E (x)	P/E FY1 (x)	P/E FY2 (x)	P/FCF (x)	Dividend Yield (%)
Median		5697270	11.24	11.81	10.88	29.97	20.63	17.27	16.27	3.11
DAIICHI SANKYO CO LTD	Yes	6421848	17.37	14.06	11.99	22.66	20.13	16.88	-	2.04
OTSUKA HOLDINGS CO LTD	No	4972693	8.28	8.32	9.43	10.87	14.48	17.66	16.27	1.53
TAKEDA PHARMACEUTICAL CO LTD	No	8193587	9.76	10.09	9.78	238.15	10.71	11.03	7.99	3.84
ASTELLAS PHARMA INC	No	4189370	8.15	9.20	8.17	33.20	21.13	14.04	11.40	3.28
CHUGAI PHARMACEUTICAL CO LTD	Yes	14319004	22.68	21.30	19.25	35.34	32.61	28.97	39.24	2.93
EISAI CO LTD		1365210	12.72	13.52	12.02	26.74	29.18	23.98	34.38	3.42

Source: Bloomberg

Fig 26 – Chinese Pharma Companies

Name	CDMO (Yes/No)	Mkt Cap (KRW)	EV/EBITDA (x)	EV/EBITDA FY1 (x)	EV/EBITDA FY2 (x)	P/E (x)	P/E FY1 (x)	P/E FY2 (x)	P/FCF (x)	Dividend Yield (%)
Median		17944	14.28	18.61	17.61	38.63	45.91	33.96	92.00	0.61
WUXI APPTEC CO LTD-A	Yes	309922	-	14.29	13.43	19.20	19.46	19.24	-	1.63
WUXI BIOLOGICS CAYMAN INC	Yes	147855	20.70	18.90	15.23	34.49	31.27	26.48	92.00	-
PHARMARON BEIJING CO LTD-A	Yes	55160	-	17.47	14.99	38.63	33.08	27.11	43.05	0.61
ASYMCHEM LABORATORIES TIAN-A	Yes	36771	-	18.31	15.39	36.67	32.52	27.43	80.06	1.06
SHANGHAI HAOYUAN CHEMEXPRE-A	Yes	17944	-	33.19	26.89	60.44	58.75	43.34	1010.06	0.27
ZHEJIANG JIUZHOU PHARMACEU-A	Yes	17442	-	9.70	9.03	24.19	18.48	16.26	16.23	2.55
PORTON PHARMA SOLUTIONS L-A	Yes	15983	-	25.43	19.82	-	119.55	55.28	100.15	-
HITGEN INC-A	Yes	15991	-	94.66	83.59	140.10	171.29	137.62	409.39	0.15
R&G PHARMASTUDIES CO LTD-A	No	8808	-	36.24	30.77	57.72	60.88	53.08	114.35	0.18
GENSCRIPT BIOTECH CORP	Yes	27782	7.85	17.59	26.10	46.77	65.09	40.50	25.97	-
INNOVATIVE MEDICAL MANAGEM-A	No	14739	-	-	-	-	-	-	-	-

Source: Bloomberg

Fig 27 – Switzerland Pharmaceutical Companies

Name	CDMO (Yes/No)	Mkt Cap (KRW)	EV/EBITDA (x)	EV/EBITDA FY1 (x)	EV/EBITDA FY2 (x)	P/E (x)	P/E FY1 (x)	P/E FY2 (x)	P/FCF (x)	Dividend Yield (%)
LONZA GROUP AG-REG	Yes	39722	24.88	19.31	17.07	54.38	33.95	28.78	-	0.35
SIEGFRIED HOLDING AG-REG	Yes	3908	15.17	14.38	13.02	24.42	23.32	20.58	-	0.44
BACHEM HOLDING AG	Yes	4931	24.32	25.13	16.96	36.68	40.97	27.24	-	0.64

Source: Bloomberg

Fig 28 – Indian Pharmaceutical Companies

Name	CDMO (Yes/No)	Mkt Cap (KRW)	EV/EBITDA (x)	EV/EBITDA FY1 (x)	EV/EBITDA FY2 (x)	P/E (x)	P/E FY1 (x)	P/E FY2 (x)	P/FCF (x)	Dividend Yield (%)
SYNGENE INTERNATIONAL LTD	Yes	253650	23.61	25.48	20.29	50.97	61.64	44.81	57.01	0.20
SAI LIFE SCIENCES LTD	Yes	191227	-	32.44	26.65	111.34	59.02	49.14	-	-
DIVI'S LABORATORIES LTD	Yes	1687186	51.00	47.62	38.17	77.01	65.78	53.55	332.12	0.47
PIRAMAL PHARMA LTD	Yes	182980	22.71	23.36	15.24	39.95	33.06	27.45	48.28	0.29
LAURUS LABS LTD	Yes	588714	41.01	37.71	30.68	163.98	80.74	61.12	-	0.15

Source: Bloomberg

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