The information and statistics set out in this section and other sections of this document were extracted from different official government publications, available sources from public market research and other sources from independent suppliers. In addition, we engaged Frost & Sullivan in preparing the Frost & Sullivan Report, an independent industry report in respect of the* [REDACTED]. *We believe that the sources of the information in this section and other sections of this document are appropriate sources for such information, and we have taken reasonable care in extracting and reproducing such information. We have no reason to believe that such information is false or misleading or that any fact has been omitted that would render such information false or misleading. The information from official government sources has not been independently verified by us, the* [REDACTED], *Joint Sponsors,* [REDACTED], *any of the* [REDACTED], *any of their respective directors and advisors, or any other persons or parties involved in the* [REDACTED], *and no representation is given as to its accuracy.

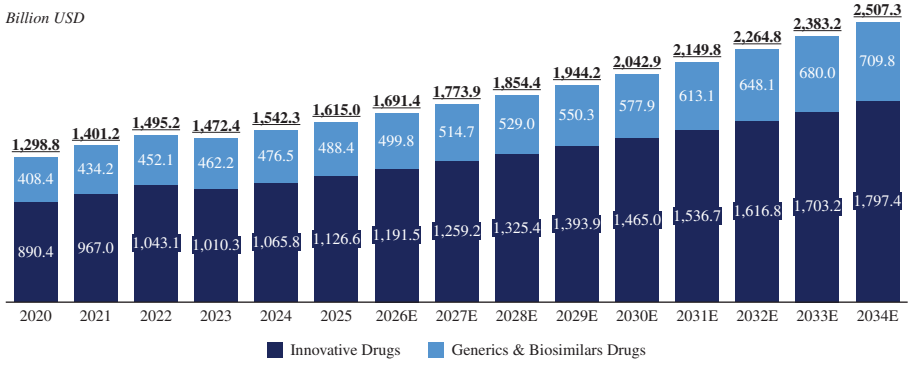
OVERVIEW OF THE GLOBAL AND CHINA PHARMACEUTICAL MARKET

Global Pharmaceutical Market

The global pharmaceutical industry increased from approximately US$1,298.8 billion in 2020 to US$1,615.0 billion in 2025, and is expected to reach US$2,507.3 billion in 2034, at a CAGR of 5.0% from 2025 to 2034. By patent status and product exclusivity, the global pharmaceutical market can be broadly classified into innovative drugs and generics & biosimilars. In 2025, innovative drugs represented a market size of US$1,126.6 billion, compared to US$488.4 billion for generics & biosimilars. From 2025 to 2034, innovative drugs are projected to grow at a CAGR of 5.3%, outpacing the growth of generics & biosimilars, and are expected to reach US$1,797.4 billion by 2034, accounting for over 70% of the global pharmaceutical market.

Breakdown of Global Pharmaceutical Market by Innovative Drugs and Generics & Biosimilars, 2020-2034E

CAGR	Innovative Drugs	Generics & Biosimilars	Total
2020-2025	4.8%	3.6%	4.5%
2025-2034E	5.3%	4.2%	5.0%



Source: Annual report, Expert interview, Frost & Sullivan Analysis

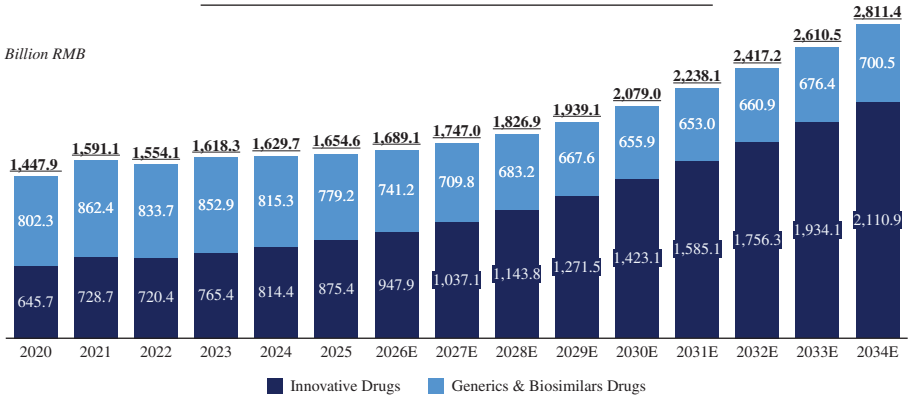
China Pharmaceutical Market

China's pharmaceutical industry increased significantly from approximately RMB1,447.9 billion in 2020 to RMB1,654.6 billion in 2025 and is expected to grow to RMB2,811.4 billion in 2034, at a CAGR of 6.1% from 2025 to 2034.

Innovative drugs are expected to be the primary growth driver, increasing at a CAGR of 10.3% from 2025 to 2034, significantly outpacing the growth of generics & biosimilars, and thereby driving a continued market mix shift toward innovative drugs.

Breakdown of China Pharmaceutical Market by Innovative Drugs and Generics & Biosimilars, 2020-2034E

CAGR	Innovative Drugs	Generics & Biosimilars	Total
2020-2025	6.3%	-0.6%	2.7%
2025-2034E	10.3%	-1.2%	6.1%



Source: Annual report, Expert interview, Frost & Sullivan Analysis

Growth Drivers of China's Pharmaceutical Market

Accelerating Population Ageing in China

Driven by increased health awareness, rising life expectancy, and declining birth rates, aging in China is faster than the global average. According to data from the Ministry of Civil Affairs, by the end of 2025, China had 323 million people aged 60 and above, accounting for 23.0% of the total population, and 224 million aged 65 and above, representing 15.9%. By 2030, the number of people aged 65 and above is projected to reach 264 million. As immune and metabolic functions generally decline with age, the elderly population typically has higher reliance on, and consumption of, medications. China's rapidly aging demographic structure is expected to be one of the most significant drivers of long-term pharmaceutical market growth.

Steady Growth in China's Total Healthcare Expenditure

Driven by demographic aging, China's healthcare expenditure has continued to rise. From 2019 to 2025, China's total healthcare expenditure increased from RMB6.58 trillion to RMB9.64 trillion, representing a compound annual growth rate of 6.6%. Total healthcare spending is projected to reach RMB12.78 trillion by 2030, with a CAGR of 5.8% from 2025 to 2030. Furthermore, total healthcare expenditure is expected to grow to RMB15.75 trillion by 2034, with a CAGR of 5.6% from 2025 to 2034.

Policy Support Strengthening the Pharmaceutical Innovation Ecosystem

China's policy and regulatory reforms continue to strengthen an innovation ecosystem anchored on clinical value and are expected to accelerate innovative drug development. In particular, the NMPA promulgated the Announcement on *Optimizing the Review and Approval Process for Clinical Trials of Innovative Drugs (2025 No. 86)*, which introduces an expedited 30-working-day IND review pathway for eligible innovative drugs. Meanwhile, the pharmaceutical intellectual property regime has been further enhanced, including the implementation of the early settlement mechanism for drug patent disputes, which is intended to improve the predictability and certainty of innovation activities. Taken together, these institutional improvements are expected to enhance R&D efficiency and accelerate innovative drug pipeline advancement, thereby supporting pharmaceutical companies continued focus on innovation-driven R&D strategies and the development of differentiated, clinically valuable drug candidates.

Innovative Therapies Emerging to Address Unmet Medical Needs

The persistent presence of unmet medical needs is a fundamental driver of the growth and evolution of China's pharmaceutical market. Despite the availability of existing therapies, limitations in treatment durability, heterogeneous disease mechanisms, and drug resistance continue to constrain long-term clinical outcomes across multiple disease areas. In oncology, intrinsic and acquired resistance to therapy frequently leads to disease progression or relapse, driving demand for novel treatments with improved and more durable efficacy. In autoimmune diseases such as rheumatoid arthritis, a meaningful proportion of patients experience inadequate or loss of response to established biologic therapies, including tumor necrosis factor (TNF) inhibitors, further reinforcing the need for therapeutic innovation. Against this backdrop, rising clinical demand for more effective and differentiated therapies is accelerating investment in drug discovery and development in China. Advances in disease biology, translational research, and drug development technologies are enabling the rapid emergence of innovative therapeutic modalities and targets. Supported by sustained R&D investment, improving innovation infrastructure, and an increasingly mature regulatory environment, next-generation therapies are becoming a key engine driving the upgrading of China's pharmaceutical industry.

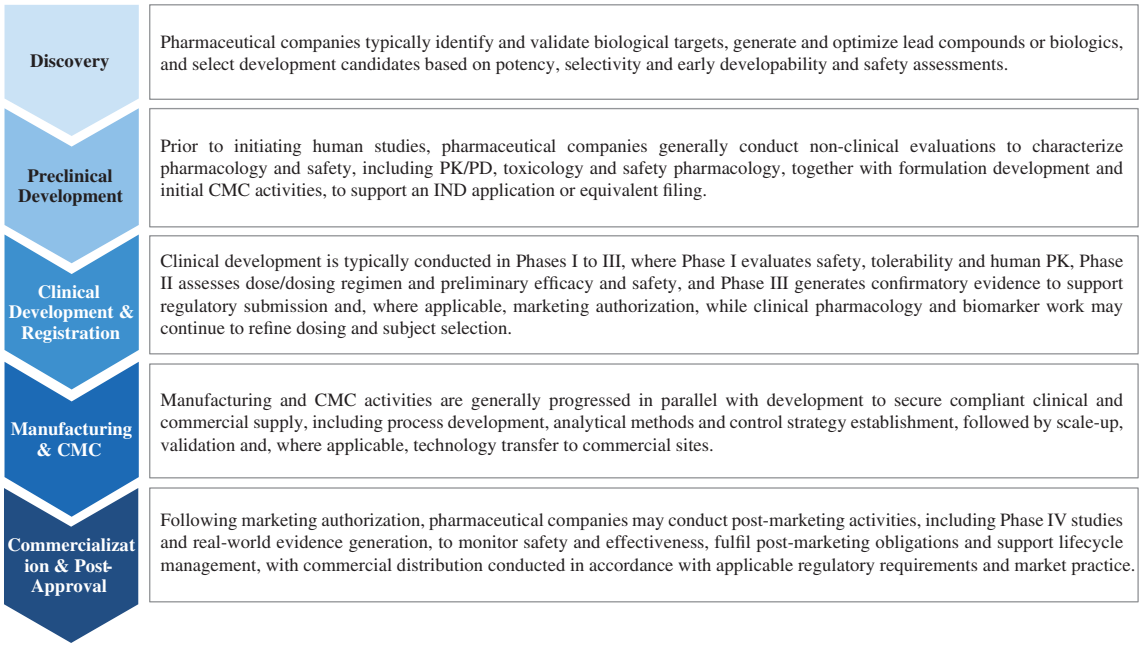
Recovery of the Financing Market and the Global Expansion Trend of the Biopharmaceutical Industry

Chinese biopharmaceutical industry has experienced a gradual recovery in financing activities, supported by increasing capital inflows and the acceleration of outbound licensing and global collaboration. In 2025, total financing raised by Chinese biotechnology companies reached approximately US$4.58 billion, representing a 39% year-on-year increase. At the same time, outbound business development transactions expanded significantly in both volume and value. In 2025, 173 business development transactions were completed, with aggregate upfront payments of US$8.3 billion (up 82% year-on-year) and total deal value of US$146.8 billion (up 218% year-on-year). Outbound transactions accounted for 127 deals and approximately US$8.0 billion in upfront payments, representing a 90% year-on-year increase. The recovery of financing activities, together with the expansion of outbound licensing and global collaboration, has become an important driver of the sustainable development of China's pharmaceutical market and the continued advancement of its biopharmaceutical industry.

THE PHARMACEUTICAL R&D PROCESS

The pharmaceutical R&D process involves the discovery of drug candidates and the subsequent testing of drug candidates to demonstrate their safety and efficacy in order to obtain regulatory approval and enter the market. It also includes post-approval studies to further assess the safety and efficacy of drugs. The process is generally costly, complex, risky and time-consuming. The entire process generally consists of five stages, namely (i) discovery, (ii) pre-clinical, (iii) clinical and registration including phases I to III clinical trials and (iv) manufacturing, and (v) commercialization.

Processes in New Drug Research and Development



Source: Literature Review, Frost & Sullivan Analysis

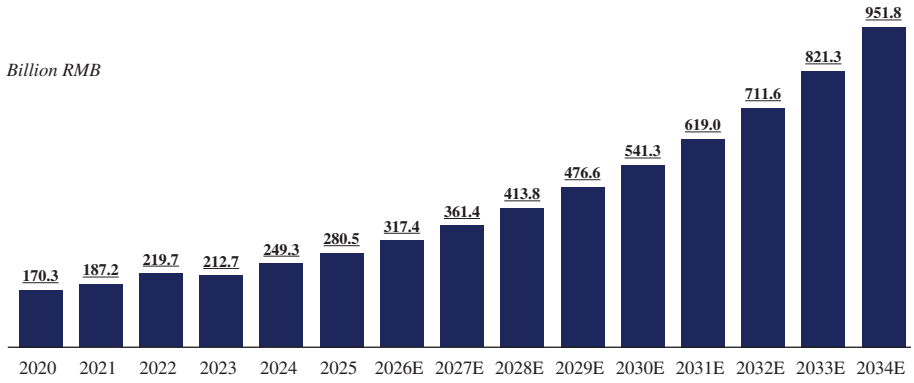
SCALE AND FORECAST OF GLOBAL AND CHINA PHARMACEUTICAL R&D EXPENDITURE

Global pharmaceutical R&D expenditure increased from US$204.8 billion in 2020 to US$296.6 billion in 2025, with a CAGR of 7.7%. Such growth was primarily driven by the continued shift of the pharmaceutical industry toward innovation-led development, which has prompted pharmaceutical companies to maintain and, in certain cases, increase R&D investment to support the discovery and development of new therapeutics. Global pharmaceutical R&D expenditure is expected to further increase to US$494.2 billion in 2034, representing a CAGR of 5.8%.

As China's pharmaceutical industry enters a stage of high-quality development, R&D innovation will receive increasing support from the government and greater attention from pharmaceutical companies. The scale of R&D expenditure in China's pharmaceutical market holds enormous growth potential. In 2025, China's total pharmaceutical R&D expenditure reached RMB280.5 billion, and it is expected to continue growing, reaching RMB951.8 billion in 2034, with a CAGR of 14.5%.

Scale and Forecast of China Pharmaceutical R&D Expenditure, 2020-2034E

Period	CAGR
2020-2025	10.5%
2025-2034E	14.5%



Source: Frost & Sullivan Analysis

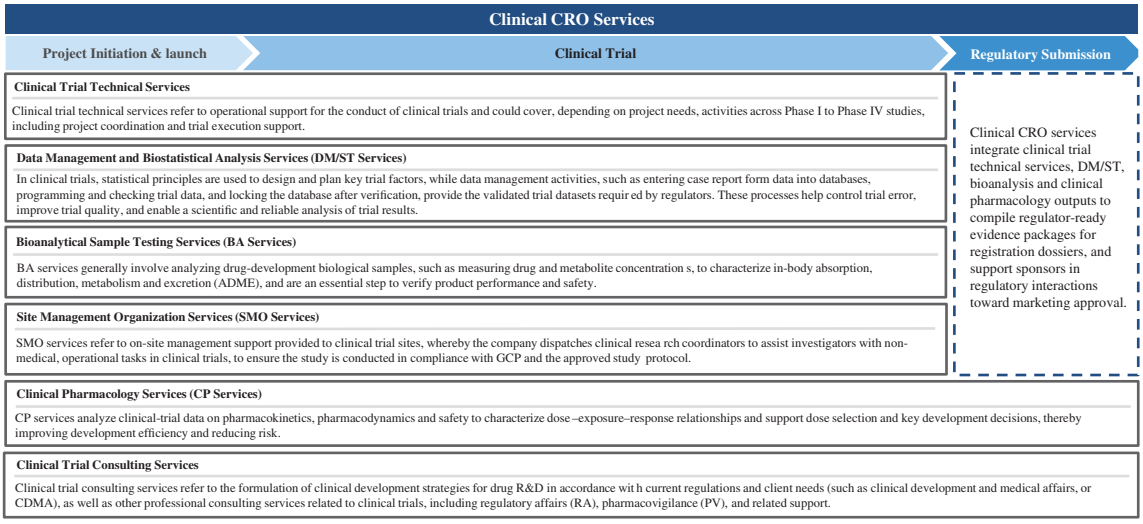
OVERVIEW OF CRO SERVICES

A CRO is an organization or institution that, during the pharmaceutical R&D process, is commissioned by pharmaceutical companies or other research institutions to conduct part or all of the required medical studies on a contractual basis. CROs provide development solutions spanning the drug discovery, preclinical and clinical stages, offering services such as DMPK, safety toxicology, bioanalysis, clinical trial monitoring, SMO (site management organization) support, data management and statistical analysis.

Clinical CRO services can be delivered through traditional project-based models or through functional service provider (FSP) services, whereby CROs provide sponsors with dedicated personnel and/or functional teams to support specific clinical development functions across one or multiple clinical development programs. Under the FSP model, services are typically organized and delivered based on defined functions or roles, such as clinical operations, site management, data management, biostatistical analysis, medical writing, regulatory affairs or pharmacovigilance, rather than being contracted on a project-by-project basis.

Clinical CRO services generally cover all stages of pharmaceutical clinical research, including clinical trial technical services, site management organization services (SMO Services), bioanalytical sample testing services (BA Services), data management and biostatistical analysis services (DM/ST Services), clinical trial consulting services and clinical pharmacology services (CP Services). Clinical CRO services are able to provide end-to-end support across the entire drug development lifecycle, starting from Pre-IND planning and dossier preparation, through IND application and study start-up, clinical study conduct and project execution, and onward to new drug marketing applications (e.g., NDA) and related registration activities, as well as post-marketing RCTs, PMS/RWE studies and re-registration work.

Overview Clinical CRO Services



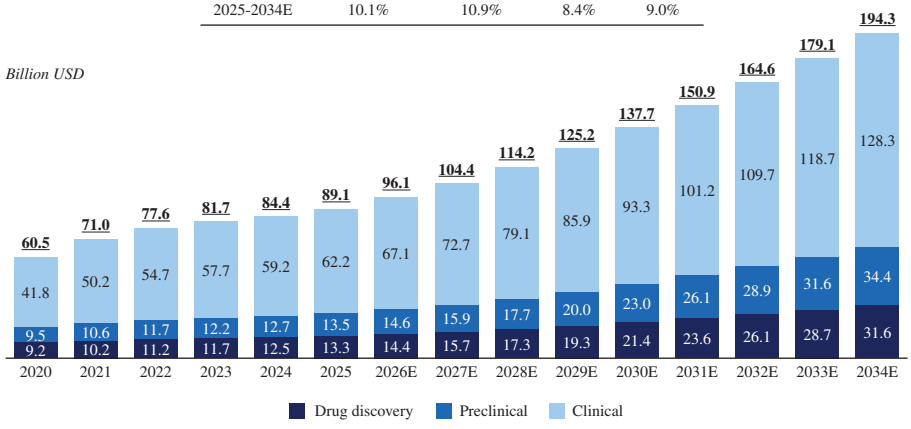
Source: Literature Review, Frost & Sullivan Analysis

THE CRO MARKET

The global CRO services market comprises three main segments: drug discovery, preclinical and clinical, of which clinical CRO services account for the largest share at around 70% of the total market. The size of global clinical CRO services market was US$62.2 billion in 2025, and is expected to reach US$93.3 billion and US$128.3 billion in 2030 and 2034 respectively, representing a CAGR of 8.3% from 2020 to 2025 and 8.4% from 2025 to 2034.

Breakdown of Global CRO services market by Drug discovery, Preclinical and Clinical, 2020-2034E

CAGR	Drug discovery	Preclinical	Clinical	Total
2020-2025	7.7%	7.3%	8.3%	8.1%
2025-2034E	10.1%	10.9%	8.4%	9.0%

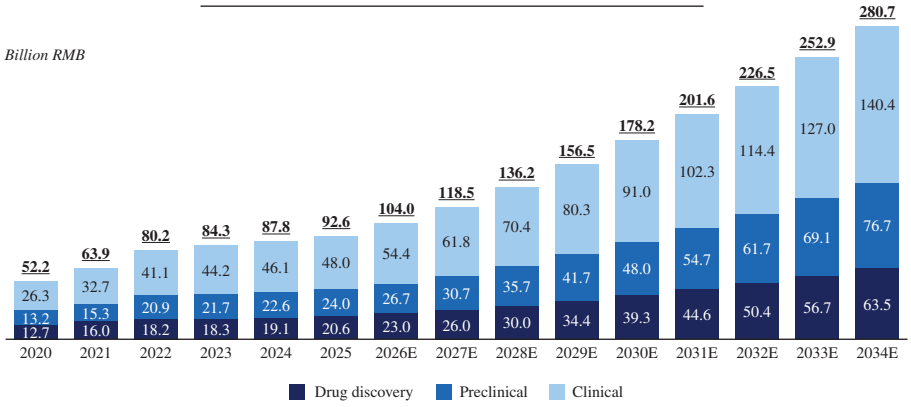


Source: Annual report, Expert interview, Frost & Sullivan Analysis

The China CRO services market comprises three main segments: drug discovery, preclinical and clinical, of which clinical CRO services account for the largest share at over 50% of the total market. The size of China clinical CRO services market was RMB48.0 billion in 2025, and is expected to reach RMB91.0 billion and RMB140.4 billion in 2030 and 2034 respectively, representing a CAGR of 12.8% from 2020 to 2025 and 12.7% from 2025 to 2034. As China's innovative drug industry becomes increasingly sophisticated, the clinical CRO market is expected to further expand in scale.

Breakdown of China CRO services market by Drug discovery, Preclinical and Clinical, 2020-2034E

CAGR	Drug discovery	Preclinical	Clinical	Total
2020-2025	10.2%	12.8%	12.8%	12.2%
2025-2034E	13.3%	13.8%	12.7%	13.1%



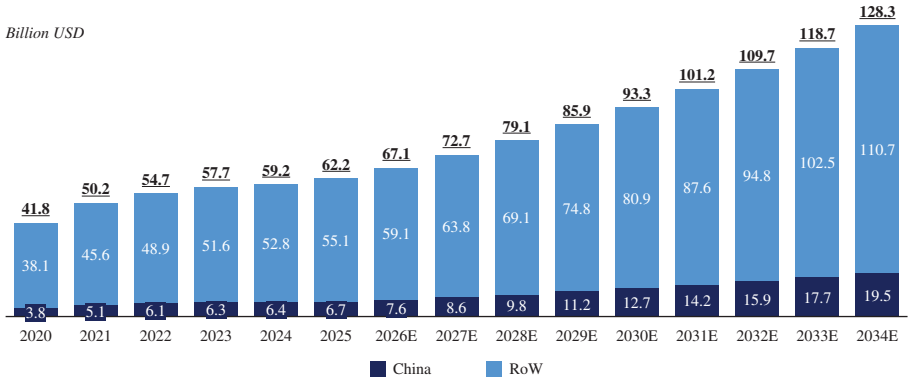
Source: Annual report, Expert interview, Frost & Sullivan Analysis

Global and China Clinical CRO Services Market

The global clinical CRO services market was valued at US$62.2 billion in 2025 and is expected to increase to US$128.3 billion in 2034, representing a CAGR of 8.4%. The China clinical CRO services market was valued at US$6.7 billion in 2025 and is expected to increase to US$19.5 billion in 2034, representing a CAGR of 12.7%. As China's innovative drug pipeline continues to expand and clinical R&D outsourcing demand increases, China's clinical CRO services market is expected to have a higher growth rate than the global market and the rest of the world over the forecast period.

Global and China Clinical CRO services market size, 2020-2034E

CAGR	China	RoW	Total
2020-2025	11.9%	7.7%	8.3%
2025-2034E	12.7%	8.1%	8.4%



Source: Annual report, Expert interview, Frost & Sullivan Analysis

Growth Drivers of China's Clinical CRO Service Market

Supportive Industrial Policies and Regulatory Framework

China's policy environment has been increasingly supportive of the clinical CRO industry, through both regulatory reforms that directly drive demand for clinical CRO services and preferential tax policies that strengthen the operating capacity of clinical CROs. Under the Marketing Authorization Holder (MAH) system implemented through the amended Drug Administration Law, research institutions and enterprises are permitted to hold drug marketing authorizations without owning their own manufacturing or clinical trial capabilities. This has given rise to a growing number of innovation-focused holders that rely on CROs to conduct clinical trials on their behalf, directly expanding demand for clinical CRO services. Building on this, the Announcement on *Optimizing the Review and Approval Process for Clinical Trials of Innovative Drugs (2025 No. 86)* established a 30-working-day review pathway for eligible innovative drugs, under which applicants are required to commit to initiating clinical trials within 12 weeks of approval. As the start-up activities required within this compressed timeline demand established clinical site networks, regulatory and ethics committee relationships, and the operational scale to execute trials rapidly, pharmaceutical companies have increasingly turned to clinical CROs to initiate and execute clinical trials within the required timelines, directly driving demand for clinical CRO services. In addition, under the preferential tax policies for High and New Technology Enterprises pursuant to the Enterprise Income Tax Law of the PRC, qualified clinical CROs are entitled to a reduced enterprise income tax rate of 15%, as compared with the standard rate of 25%. By lowering effective tax rates, this policy improve the profitability of clinical CRO operators and reinforce their incentive to expand technical platforms, methodologies and service capabilities, thereby underpinning the continued development of the clinical CRO industry in China.

Rising R&D Burden and China Cost Advantages

Clinical development is becoming increasingly complex and resource-intensive, prompting pharmaceutical companies to raise outsourcing penetration across clinical operations, monitoring, data management and safety functions in order to control fixed costs and mitigate project risk. At the same time, published analyses indicate that the direct cost of conducting clinical trials in China can be approximately 30%-40% of the comparable costs incurred in the United States, while local capabilities in investigator resources and subject recruitment efficiency continue to improve. These factors have contributed to comparatively high operational efficiency and cost-effectiveness, which support the competitiveness of PRC CRO service providers in serving both domestic and overseas pharmaceutical companies.

Patent Cliff and Profitability Pressure

The concentration of patent expiries for innovative drugs has intensified competitive pressure across the pharmaceutical industry. Chinese pharmaceutical companies are re-evaluating the sustainability of large, fully in-house R&D organizations and are gradually shifting toward a more collaborative outsourcing model. In this context, sponsors are increasingly relying on clinical CROs for protocol optimization, multi-centre trial operations, data management and safety management and, where relevant, overseas development support. By leveraging CROs' specialized talent, standardized processes and cross-project scale effects, companies can improve development efficiency, shorten study timelines and reduce marginal project costs amid stricter budget and return requirements, making external clinical outsourcing a critical lever for sustaining innovation productivity in a patent cliff environment.

Globalization Trend of Chinese innovative drugs

As a rising number of Chinese innovative drugs, particularly in oncology and immunology, are advanced into the US, Europe and other regions through out-licensing, co-development and multi-regional clinical trials (MRCTs), the volume of cross-border clinical development activities continues to increase. This expansion directly raises demand for clinical

CRO partners capable of MRCT execution, overseas regulatory support and cross-regional project management. Chinese clinical CROs with bilingual teams, international delivery capabilities and a solid understanding of both domestic and global regulatory frameworks are well positioned to capture these higher value-added cross-border projects, thereby supporting sustained growth of the overall clinical CRO market in China.

Future Trends in China's Clinical CRO Service Market

Specialized and Integrated Business Models: Building One-Stop Service Platforms

In China, the clinical CRO industry is rapidly evolving toward "one-stop" service platforms that combine specialization with integration, extending their role from single clinical execution functions to full lifecycle coverage from Phase I — IV to post-marketing studies. Going forward, clinical CROs are expected to provide integrated solutions across key functions such as protocol design, clinical operations, biostatistics, data management, central laboratory services and pharmacovigilance, thereby systematically improving R&D efficiency, shortening project timelines, and, at the same time, expanding service boundaries, reducing customer acquisition and coordination costs, and strengthening client stickiness and project concentration. Such one-stop platforms are typically underpinned by continuous internal investment and external M&A-driven consolidation, enabling scaled and synergistic resource allocation, and are anticipated to become a major development direction and a key driver reshaping the competitive landscape of China's clinical CRO industry.

Deepening Specialization of Service Capabilities and Focus on Niche Segments

As China's clinical CRO market continues to mature and evolve, the trend toward deeper specialization in service capabilities is expected to become increasingly evident. Clinical CROs are gradually shifting from broad but fragmented offerings to more focused and specialized models. Larger clinical CROs generally leverage their established brand presence and scaled delivery capabilities to further strengthen integrated, platform-based service offerings, while small- and mid-sized clinical CROs tend to concentrate on specific therapeutic areas such as oncology, autoimmune diseases, ophthalmology, vaccines, metabolic diseases and respiratory diseases, while continuously refining service modules across key functions including biostatistics, data management, pharmacovigilance, and subject recruitment and management, thereby developing more in-depth and differentiated service portfolios. At the same time, service supply in high-growth niche areas such as rare diseases, radiopharmaceuticals and cell therapy is expected to strengthen further, driving the accelerated emergence of specialized clinical CROs with notable technical advantages and accumulated project experience in these segments, which will complement integrated, one-stop platforms.

Digital transformation of clinical CRO capabilities

Against intensifying competition and rising complexity in China's clinical drug development landscape, clinical CROs are increasingly investing in digital infrastructure, adopting big data, AI and cloud computing, and building digital clinical trial systems based on tools such as CTMS, EDC, ePRO and eCTD. Closely linked to methodological innovation this digitalization enables standardized project process management, which enhances process control and service quality, accelerates trial execution, shortens overall development timelines and reduces R&D costs. In practice, cloud-based remote monitoring workstations allow study staff to access projects on-site or remotely, while online subject recruitment systems expand the eligible subject pool and shorten the time required to identify suitable trial participants.

Sustained Fragmentation of Market Structure

China's clinical CRO service market is expected to continue to exhibit a fragmented market structure, with service providers operating across different clinical stages, therapeutic areas and geographic regions. The combined market share of the top five clinical CROs decreased from 30.8% in 2023 to 30.2% in 2025, reflecting a continued dispersion of clinical

development demand among multiple service providers. As pharmaceutical and biotechnology sponsors increasingly adopt diversified outsourcing strategies and engage multiple CRO partners, overall market concentration is expected to remain at a moderate level, and such fragmented market structure is expected to persist in the near to medium term.

Increasing share of overseas clinical CRO services

As pharmaceutical companies increasingly pursue overseas opportunities, Chinese clinical CROs are rapidly expanding from domestic outsourcing to international project delivery. Since China joined the ICH in 2017, the country has been aligning its regulatory standards with global norms to facilitate more cross-border collaboration. Meanwhile, the State Council has expressly stated in the *Opinions on Promoting the Accelerated Development of the Service Outsourcing Industry* that it supports eligible service outsourcing enterprises to "go global" and encourages the undertaking of high value-added cooperation projects, including R&D outsourcing, thereby providing policy support for Chinese CROs to expand overseas markets and participate in international project delivery. At the same time, the Chinese government has encouraged the import of high-quality medicines, particularly those addressing unmet medical needs in China, which has brought an increasing number of multinational-sponsored MRCTs and early-phase clinical projects into the country. Compared with Europe and the United States, China offers clear advantages in labor and operating costs, driving a shift of overseas orders to the Chinese market. Going forward, more international companies and projects are expected to rely on Chinese clinical CROs that can deliver high-quality services and provide in-depth insight into China's regulatory environment.

COMPETITIVE LANDSCAPE IN THE CLINICAL CRO MARKET

Competitive Landscape of China Clinical CRO services Market Players, 2025

The following table summarizes the top 10 clinical CRO service providers in China in 2025.

Company	Clinical CRO Services Revenue (Billion RMB)	Listing Status	Background
Company A	5.2	Listed	Founded in 2004 and headquartered in China, A is a clinical CRO serving pharmaceutical, biotechnology and medical device companies. Its services include clinical trial operations, data management and biostatistics.
Company B	3.8	Listed	Formed in 2016 and headquartered in the US, B is a global provider of healthcare data, analytics, technology and clinical research services. It supports customers across clinical development and commercialization.
Company C	2.0	Listed	Founded in 2004 and headquartered in China, C is a life science services provider spanning drug discovery, preclinical and clinical development and manufacturing. Its clinical services support trials across Phase I to Phase IV.
Company D	1.8	Listed	Established as an independent public company in 2023 following its spin-off from a leading global laboratory services company and headquartered in the US, D is a global CRO operating in around 90 countries. It provides Phase I–IV clinical trial management, clinical pharmacology and patient access solutions.
Company E	1.7	Listed	Founded in 2000 and headquartered in China, E is a global pharmaceutical and biotech R&D services platform spanning drug discovery, development and manufacturing. Its clinical-stage capabilities include central laboratory, bioanalytical and regulatory support services.
Company F	1.2	Unlisted	Founded in 1995, F is a privately held, full-service global CRO with delivery centers across the US, China, Europe and Asia. It offers full-service and functional service models covering clinical operations, biometrics, regulatory affairs and pharmacovigilance.
Company G	1.1	Unlisted	Founded in 1982 and headquartered in the US, G is a global CRO serving life sciences companies through clinical development and regulatory consulting. Its services span clinical operations, data management, biostatistics and pharmacovigilance.
Company H	0.9	Listed	Founded in 2008 and headquartered in China, H is a clinical CRO providing full-process clinical research services. Its capabilities span clinical trial operations, data management and biostatistics, clinical pharmacology and registration services.
Company I	0.8	Listed	Founded in 2013 and headquartered in China, I is a clinical research organization specializing in site management organization (SMO) services. It deploys clinical research coordinators (CRCs) to trial sites and provides related project management support.
Company J	0.8	Unlisted	Founded in 2005 and headquartered in China, J is a CRO providing one-stop clinical development and registration solutions. Its services cover clinical operations, site management, laboratory testing and biostatistics.

Source: Frost & Sullivan Analysis

In terms of revenue from clinical CRO services in 2025, PANACRO ranked 14th among China-headquartered(1) market players, with a market share of 0.7%. As compared with the industry average level, PANACRO demonstrates certain advantages in terms of gross profit margin, net profit margin and revenue per employee.

Company	Gross profit margin(2) (%)	Net profit margin(2) (%)	Revenue per employee(2) (Million RMB)
PANACRO	**38.9**	**15.4**	**0.7**
Industry Average	~30	~10	~0.6

(1). China-headquartered company refers to company with its headquarters and principal management primarily based in Mainland China.

(2). The gross margin refers to the gross margin of the clinical CRO services; The net profit margin refers to the Company's overall net profit margin; Net profit margin = Profit attributable to owners of the listed company/revenue; Revenue per employee refers total revenue divided by the total number of employees in 2025.

Source: Annual report, Expert interview, Frost & Sullivan Analysis

Entry Barriers of Clinical CRO Service Market

Professional Talent and Expertise

The clinical CRO services industry is inherently talent-intensive, and sustained access to specialized and experienced professionals constitutes a critical entry barrier. With continued policy support for innovation, an increasing number of differentiated drug candidates are emerging, and the quality of key activities such as clinical trial protocol design now directly influences trial outcomes. This trend has materially raised capability requirements, particularly in highly specialized areas such as oncology and stem cell therapy, where practitioners are expected to possess deep expertise in tumor biology, cancer therapeutics and cutting-edge stem cell science, alongside strong proficiency in dosing procedures and precise instrument operation. Given the long training cycle required to develop such senior experts, it is challenging for new clinical research service providers to rapidly build technical teams of sufficient scale and quality.

Advanced Technology and Processes

The increasing adoption of digital and intelligent technologies in clinical development has raised the capability threshold for clinical CRO service providers. Advanced tools such as electronic data capture (EDC), electronic patient-reported outcomes (ePRO), remote and risk-based monitoring, as well as big data- and AI-supported protocol design and site selection, have become integral to enhancing data integrity and regulatory compliance, improving subject safety and optimizing overall trial efficiency and cost structures. Leading clinical CROs have embedded such digital platforms and standardized processes into complex trial designs, cross-regional multi-centre trial management and subject recruitment workflows, enabling scalable and reliable execution. By contrast, new entrants, typically constrained by capital resources, technological infrastructure and accumulated operational experience, may face difficulties in building and validating comparable digital capabilities, thereby limiting their competitiveness in large-scale and high-complexity clinical programs.

Accumulated Reputation for Quality

In the relatively homogeneous clinical research services market, high-quality and efficient execution, together with a well-established reputation, constitute significant entry barriers. Leading clinical CROs have accumulated long-term project experience in specific therapeutic areas and niche indications, supported by mature quality management systems, standardized operating procedures and systematic staff training. These capabilities enable consistent data quality, on-time delivery and sustained regulatory compliance, thereby underpinning strong credibility with sponsors and regulatory authorities. By contrast, smaller and emerging players typically lack comparable historical track records and fully developed quality infrastructures, which constrains their ability to evidence execution capability for complex and high-standard clinical trials required by leading biopharmaceutical sponsors.

Liquidity constraints among small- and mid-sized biopharma companies

Small- and mid-sized biopharmaceutical clients typically operate under constrained cash flow conditions due to funding uncertainty and ongoing R&D expenditures, and therefore tend to adopt extended payment terms, resulting in longer collection cycles for CRO service providers and, in certain circumstances, could adversely affect the timing of revenue recognition of clinical CRO companies. Payment delays are common in B2B transactions and may become more pronounced when customers face heightened financial pressure, thereby increasing receivables management and cash-conversion risks for suppliers. As a result, clinical CROs are required to maintain strong working-capital capacity and robust credit and collection controls to sustain project delivery under extended cash-conversion cycles, which materially elevates the entry barrier for new market entrants.

SOURCE OF INFORMATION

In connection with the [**REDACTED**], we have commissioned Frost & Sullivan, an independent third party, to conduct research and analysis of, and to produce a report on the pharmaceutical outsourcing market. The Frost & Sullivan Report has been prepared by Frost & Sullivan independent of our influence. We have agreed to pay Frost & Sullivan a fee of RMB560,000 for the preparation of the report which we consider in line with market rates. Except as otherwise noted, all data and forecasts in this section are derived from the Frost & Sullivan Report. Our Directors confirm that, after taking reasonable care, there is no adverse change in the market information since the date of the Frost & Sullivan Report which may qualify, contradict or have an impact on the information disclosed in this section. Frost & Sullivan's independent research was undertaken primarily through secondary research which primarily involved analyzing data from various publicly available data. In compiling and preparing the Frost & Sullivan Report, Frost & Sullivan has made the following key assumptions: (i) the economies of the United States and China are likely to maintain a steady rate of growth in the next decade, (ii) the key growth drivers mentioned in this section are likely to drive the growth of the global pharmaceutical market and the pharmaceutical outsourcing industry market from 2025 to 2034 and (iii) there is no force majeure or industry regulation that affects any of such markets dramatically or fundamentally.