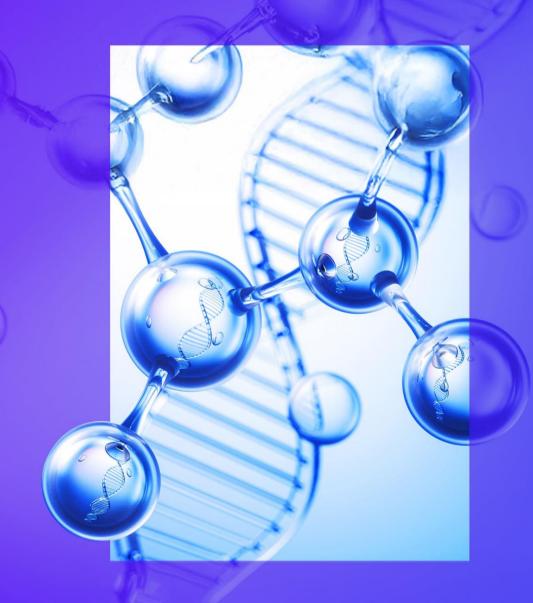


# China Life Sciences Sector Overview and Outlook



2025 April

kpmg.com



### **Executive summary**



Historically, life science companies experienced a decline in deal activity in 2020 due to the economic uncertainty and market volatility caused by the pandemic, which led to cautious behavior from investors and businesses, resulting in delayed deals and mergers. In contrast, 2021 experienced a significant increase in deal activity, driven by heightened investor interest in healthcare innovation, adaptation to virtual and remote transaction processes, and a strategic emphasis on expanding capabilities through M&A.



From 2022 onwards, rising inflation rates, interest rate hikes by central banks, including the US Federal Reserve, market volatility, and geopolitical tensions, such as the Russia-Ukraine conflict, contributed to increased investor uncertainty and reduced appetite for high-risk investments, leading to significant decline in transactions.



Currently, in these difficult times, introduction of innovative drugs, seeking out-licensing transactions, rising overseas collaborations and implementation of AI in products has kept on prompting players to innovate or expand their offerings locally and internationally.



Looking ahead, the deal activity for life science companies in China seems promising and is anticipated to be robust post-2024, driven by substantial government support, funding, and ongoing regulatory reforms aimed at streamlining approval processes and promoting innovation.

- Increased innovation and research and development efforts will likely foster strategic partnerships, while companies seek to expand both domestically and internationally, leading to a rise in cross-border transactions
- Further, the ageing population is expected to escalate demand for healthcare solutions, resulting in more deals targeting age-related diseases and conditions. Additionally, a rise in venture capital investment in Chinese biotech startups will fuel deal activity as these companies grow and mature, further enhancing the market's attractiveness to investors

Sub-sectors covered in the report



**Pharmaceuticals** 



Biotechnology



Medical device



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1.

### Macro-economic landscape



# China has been noting an economic slowdown, largely due to low consumption, thereby impacting demand for LS products



#### **Inflation**

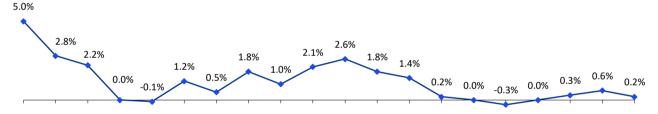
China has been observing low inflation rates since 2020, primarily driven by subdued domestic demand and cautious consumer spending.<sup>1</sup>

Moderate inflation can raise costs for raw materials and services in the life sciences industry, leading to higher prices for end customers and life sciences players may need to adjust prices suitably to maintain profitability.<sup>2</sup>

Going forward, inflation rates are expected to rise moderately in coming years driven by government's efforts to curb deflationary pressures<sup>3</sup>

• In Sep 2024, China's central bank cut interest rates to boost economic growth. Further, it reduced rates on existing mortgages by 0.5 percentage points and lowered bank reserve requirements to support new lending<sup>4</sup>

#### China consumer prices, 1Q20-4Q24 (average percentage change)



1Q20 2Q20 3Q20 4Q20 1Q21 2Q21 3Q21 4Q21 1Q22 2Q22 3Q22 4Q22 1Q23 2Q23 3Q23 4Q23 1Q24 2Q24 3Q24 4Q24 Source: EIU

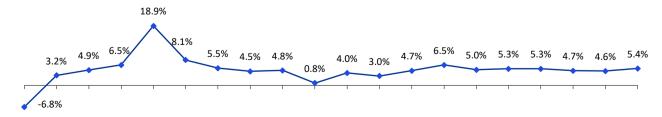


#### **GDP** growth

China has been witnessing an economic slowdown in terms of GDP growth in recent years primarily due to productivity challenges and low consumer demand across sectors.<sup>5</sup>

Government stimulus to boost consumer spending and GDP growth is likely to prompt development in life sciences industry as production of pharmaceuticals and medical devices may note rise. Also, demand for such products through domestic sales and exports may also observe growth with rising GDP.<sup>6</sup>

#### China real GDP growth rate, 1Q20-4Q24 (average percentage change)



1Q20 2Q20 3Q20 4Q20 1Q21 2Q21 3Q21 4Q21 1Q22 2Q22 3Q22 4Q22 1Q23 2Q23 3Q23 4Q23 1Q24 2Q24 3Q24 4Q24 Source: FIU



# Wherein, a weaker Chinese currency, global tariff uncertainties, and lower lending rates could promote LS exports and production



#### Foreign exchange rate

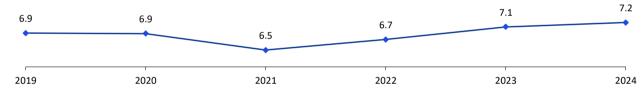
China's currency has been relatively steady over the years, however, towards the end of 2024, it declined to CNY7.4 against the US\$, primarily due to the apprehensiveness of higher US trade tariffs and falling Chinese long-term bond yields, impacting investor sentiment.<sup>7</sup>

- Per Feb 2025 press release, US imposed 10.0 percent tariff on imports of Chinese goods, including raw materials used to make critical drugs in the US, plastic gloves used in healthcare institutions and disposable face masks used in laboratories<sup>8</sup>
  - The move may render Chinese products more expensive in the US market therefore impacting exports and profits of Chinese life sciences players<sup>8</sup>

However, weaker currency may also result in making China's exports more competitive and attractive for the global market, therefore boosting demand for life sciences products.<sup>9</sup>

Notably, China's life sciences industry is a major exporter of various medical tools and active pharmaceutical ingredients (APIs) which may benefit from a depreciated Yuan at the global level.<sup>9</sup>

#### Average US\$-CNY exchange rate, 2019-29F



Source: EIU

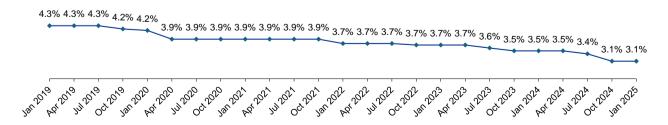


#### Interest rate

China's policymakers have been reducing lending rates with the objective of easing the monetary policy amid the ongoing economic slowdown in China to boost economic activities. 10

Going forward, low lending rates are expected to act as stimulus for pharmaceutical and life sciences companies in China as it will provide easier access to capital and investments in building research facilities and funding new clinical research projects. <sup>11</sup>

#### China Loan Prime Rate (1 Year), Jan 2020-Jan 2025 (percentage)



Source: EIU



# Further, the rising chronic diseases among China's elderly population act as growth catalysts for the nation's LS industry



#### **Ageing population**

China's growing ageing population with high rate of chronic disease patients is expected to drive demand for preventive care products, thereby boosting development in life sciences industry. <sup>12</sup>

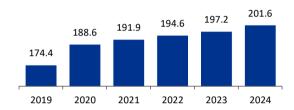
With more than 75.0 percent of elderly people in China having at least one chronic disease, life sciences players in the country have a huge market to cater  $to^{12}$ 

- Per 2020 publication, 34.3 percent of China's adults were overweight, and 16.4 percent were obese. It is predicted that overweight and obesity rates among Chinese adults could reach 65.3 percent by 2030<sup>13</sup>
- Further, minors in China are also suffering from weight issues, wherein about 19.0 percent children (aged 6 to 17) and 10.4 percent of children under the age of 6 are overweight or obese<sup>13</sup>
- Per 2022 publication, 330.0 million people suffer from cardiovascular diseases in China, out of which 245.0 million suffer from hypertension<sup>14</sup>

There is also increased health awareness among elderly people, reflected from the fact that there is an increase in preventive health needs such as physical examinations and early disease screening in China. 15

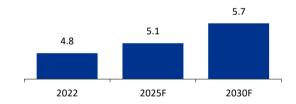
Going forward, as the elderly population continues to rise, the potential demand for elderly health services will also increase acting as a major driver for the life sciences industry to keep doing clinical research to prevent chronic diseases in elderly people. 16

#### Population in China aged 65 and above, 2019-24 (million)



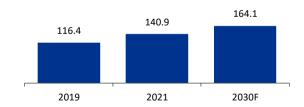
Source: EIU

#### Estimated number of new cancer cases, 2022-30F (age 0-85+, both sexes, millions)<sup>17</sup>



Source: International Agency for Research on Cancer

#### Estimated number of people with diabetes mellitus in China, 2019-30F (millions)<sup>18</sup>



Source: International Diabetes Federation



## 2.

### Sector Outlook



# The Pharmaceutical sector is expected to witness substantial growth, driven by a rise in aging population and technological advancements

#### **Pharmaceutical sector**

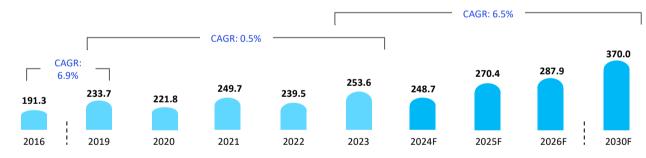
#### China pharmaceutical market is poised for healthy growth

Historically, the market witnessed strong growth largely led by macroeconomic factors such as a growing geriatric population in the country and the prevalence of chronic illness along with supportive government policy measures.

However, in recent years, growth slumped on account of COVID-19 pandemic (strict lockdown measures, supply chain disruptions, and shifts in healthcare priorities), regulatory reforms (such as the "4+7" volume-based procurement policy<sup>(c)</sup>) and macroeconomic factors (trade tensions, slowing economic growth, and reduced consumer spending).

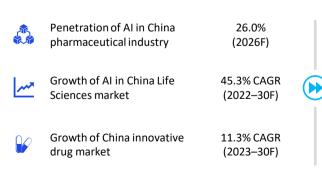
Going forward, the promising growth trajectory might be attributable to factors including post-pandemic recovery, technological advancements, prevalence of innovative medicines, the nation's rising aging population and health-conscious middle class, coupled with collaborations between local and international firms to drive innovation and market expansion.

#### China pharmaceutical market, 2016-30F (US\$ billion)(a),(b) 19



Source: Gonyn

#### China pharmaceutical market key growth drivers



Looking ahead, the robust growth of market driving factors such as penetration of AI in pharmaceuticals, adoption of technological advancements, and innovative drugs development are poised to propel the growth of the overall pharmaceutical industry in China

 Further supportive factors such as government policies encouraging application of innovative drugs and AI, rising collaboration with foreign players and growth in out licensing deals promote the market development

Note(s): (a) Figures have been identified through webplot digitizer; (b) Figure for 2030F has been calculated basis KPMG analysis and average annual growth during 2023–2028F; (c) The policy aimed to reduce drug prices and increase the use of generics, impacting pharmaceutical companies' revenues and market dynamics



# The medical device sector looks similarly promising, propelled by innovation, investment, and regulatory support

#### **Medical device sector**

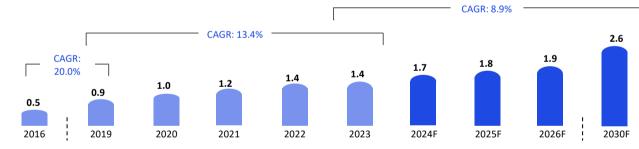
#### China medical device market is expected to witness significant growth

Historically, the market experienced significant growth, primarily driven by substantial government support through the introduction of policies and reforms, coupled with strict restriction on imported products, thereby fostering the growth of domestic products.

Further, in recent years, government policies like 'Made in China 2025', rising chronic diseases, and investments in innovative technologies are driving China's medical device market growth by enhancing domestic capabilities, increasing demand for elderly care and chronic disease management, and improving treatment efficiency and precision.

Going forward, the industry is poised for robust development, driven by consistent growth in product registrations and filings, enhanced national policy support and optimization, ongoing medical reforms, an aging population, and increased consumption capacity and health awareness.

#### China medical device market, 2016-30F (US\$ trillion)(a),(b) 20



#### Source: Qianzhan

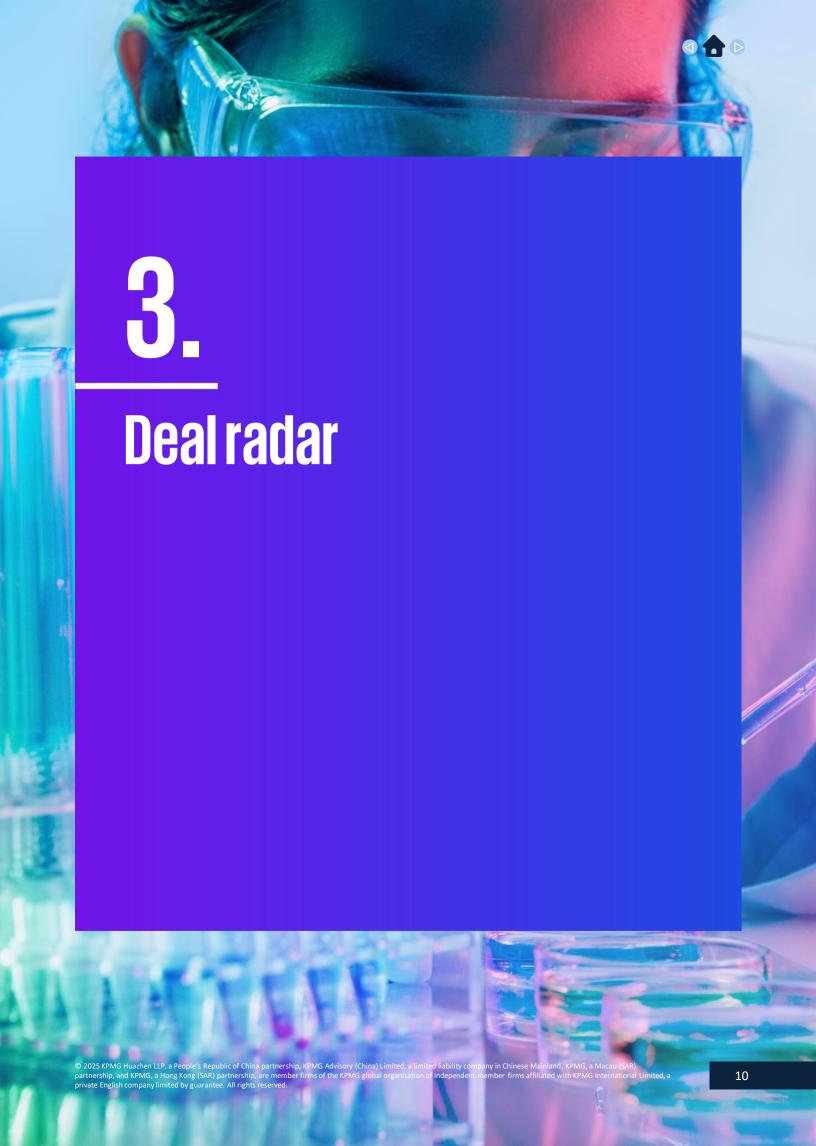
#### China medical device market key growth drivers

	Penetration of AI in China medical device industry <sup>21</sup>	41.3% (2030F)
<u>~~</u>	Growth of China 3D printed medical device market <sup>22</sup>	12.5% CAGR (2023–34F)
	Growth of China surgical robot market <sup>23</sup>	38.4% CAGR (2021–32F)
	Growth of China wearable medical device market <sup>24</sup>	13.5% CAGR (2021–30F)

Looking forward, the overall growth of the medical device industry in China is expected to be propelled by significant market drivers including the integration of AI in medical devices and the adoption of advanced technologies such as surgical robots, wearable devices, and 3D-printed devices

 Rising investments, supportive government policies, and increased and effective healthcare demand is expected to boost the medical device sector

Note(s): (a) Figures have been identified through webplot digitizer; (b) Currency converted at an exchange rate of 1CNY = U\$\$0.1382, as on 19 Mar 2025 via Oanda.com

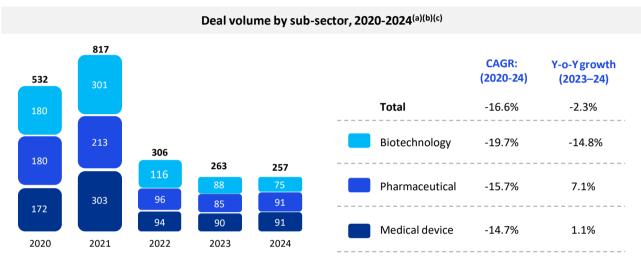




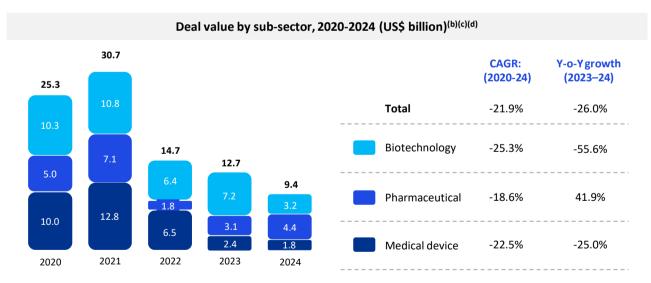
# Transactions across LS sector declined in 2024, due to economic slowdown and increased regulatory scrutiny



China M&A activity (2020-2024)



Source: Refinitiv



Source: Refinitiv

- In 2024, China's life sciences sector saw a slight decline in deal activity due to economic uncertainties and regulatory challenges, leading to more cautious investor behavior and fewer, smaller deals<sup>25</sup>
- In 2021, post-COVID-19, the life science industry attracted significant investor interest, especially in biotech R&D deals. However, in 2022, M&A activity declined due to secondary market weakness and valuation adjustments<sup>26</sup>

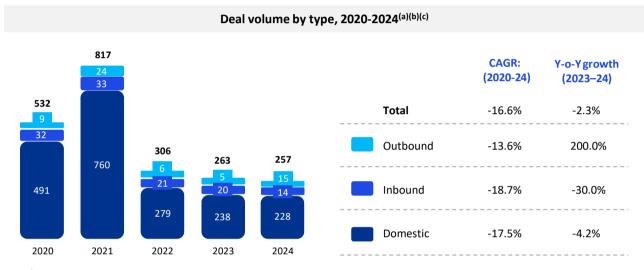
Note(s): (a) The deal count includes closed deals; (b) Total deals include domestic, inbound and outbound deals; (c) The deal dump included 32 deals with unknown acquiror, so they have been excluded from the analysis; (d) Total deal value is only depicted for deals for which deal value was disclosed/available



# In 2024, outbound transactions surged as Chinese firms aimed to expand their global presence and enter new markets



Deal analysis (2020-2024)



- Source: Refinitiv
- By deal type, domestic deals in China account for 89.0 percent of the total transactions, propelled by increasing government support for domestic innovation, encouraging local firms to focus on domestic growth<sup>27</sup>
- In 2024, outbound deals in China's life science sector increased as Chinese companies actively pursued strategic mergers and acquisitions to expand their global presence<sup>25</sup>
- The US dominated inbound (36.7 percent) and outbound (42.4 percent) deals, due to strong innovation ecosystems, advanced research capabilities, and strategic partnerships between Chinese and American companies<sup>27</sup>
  - Inbound<sup>(d)</sup> deals were further dominated by Singapore (16.7 percent), the UK (5.8 percent), Japan (5.8 percent), France (4.2 percent), Switzerland (4.2 percent) and Others<sup>(e)</sup> (26.7 percent)
  - Additionally, outbound<sup>(f)</sup> deals were further dominated by Germany (6.8 percent), the UK (6.8 percent), Spain (5.1 percent), South Korea (5.1 percent), Australia (5.1 percent) and others<sup>(g)</sup> (28.8 percent)

Note(s):

(a) The deal count includes closed deals; (b) Domestic deals refer to both target and acquiror from the same nation, Inbound deals are transactions where a foreign company acquires a domestic company and Outbound deals are transactions where a domestic company acquires or merges with a foreign company; (c) The deal dump included 32 deals with unknown acquiror, so they have been excluded from the analysis; (d) Geographies denote acquiror's nation with Chinese target; (e) Others include South Korea (3.3%) Germany (3.3%) Malaysia (2.5%) Australia (1.7%) Denmark (1.7%) Netherlands (1.7%) Saudi Arabia (1.7%) Bahrain (0.8%) Canada (0.8%) Cayman Islands (0.8%) Chad (0.8%) Thailand (0.8%) British Virgin Island (0.8%) Finland (0.8%) Ireland (0.8%) Iceland (0.8%) Italy (0.8%) Spain (0.8%) Sweden (0.8%) United Arab Emirates (0.8%); (f) Geographies denote target's nation with Chinese buyer; (g) Others include Italy (5.1%) Canada (3.4%) Thailand (3.4%) Switzerland (3.4%) British Virgin Islands (1.7%) Canada (1.7%) Indonesia (1.7%) Ireland (1.7%) Israel (1.7%) Japan (1.7%) New Zealand (1.7%) Singapore (1.7%)



Deal analysis by sub-sector, 2020-2024

#### Medicaldevice

91 deals in 2024

US\$1.8

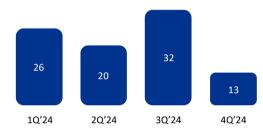
**35.4%** share of 2024 deal volume

#### 2024 review

In 2024, China's Medical device sector saw a mixed performance in terms of deals. In 3Q'24, there were ten M&A deals worth a total of US\$218.2 million, which was a 60.0 percent increase from the previous quarter<sup>28</sup>

 However, in 4Q'24, the sector witnessed y-o-y decline, due to the anti-corruption campaign, which reduced hospital procurement, lowering demand for medical devices. Consequently, fewer hospital tenders led to intense price competition, impacting profit margins<sup>28</sup>

#### Medical device deal volume, 1Q'24-4Q'24



Source: Refinitiv

Top 3 China Medical device deals 2024(a)

	Announced date	Target	Stake	Target country	Bidder	Bidder country	Value (US\$ million)
1	Jan 2024	APT Medical	21.1%	China	Shenzhen Mindray Technology	China	927.0
2	Jan 2024	Beijing Lanfan Baisheng Medical Technology	18.4%	China	Investor Group	China	125.5
3	Sep 2024	Global Resources International	75.2%	US	Winner Medical	China	120.0

#### 2025 outlook

In 2025, China's M&A activity is expected to see a significant rebound after years of decline. The resurgence is driven by government stimulus measures and the need for companies to adapt to new economic conditions, including tariff pressures from the US<sup>29</sup>

"Multinational companies and overseas investors will continue to evaluate their China strategies, which could lead to divestments or increased investments. Foreign investment into China from Europe, the Middle East and Africa will continue to rise, especially in the financial, consumer and healthcare sectors." – Yahoo! Finance, Dec 2024<sup>29</sup>

Note(s): (a) Deals have been arranged in descending order of deal value



Deal analysis by sub-sector, 2020-2024

#### **Pharmaceuticals**







#### 2024 review

The pharmaceutical sector saw a slight increase in deal activity, increasing from 85 transactions in 2023 to 91 in 2024, but deal value surged by 38.4 percent due to two major acquisitions

 In 1Q'24, the sector experienced a significant increase in M&A activity, with 11 more deals y-o-y. The growth was notably driven by a focus on oncology and immunology<sup>30</sup>

#### Pharmaceuticals deal volume, 1Q'24-4Q'24



Source: Refinitiv

Top 3 China Pharmaceutical deals 2024(a)

	Announced date	Target	Stake	Target country	Bidder	Bidder country	Value (US\$ million)
1	Aug 2024	UCB SA-China Business	100.0%	China	Investor Group	Singapore	680.0
2	Feb 2024	CP Pharmaceutical (Qingdao)	67.0%	China	Investor Group	China	252.8
3	Jun 2024	Shenzhen JYMed Technology	92.2%	China	Sichuan Hexie Shuangma	China	224.3

#### 2025 outlook

Global economic growth and increased health awareness have driven rapid demand for pharmaceutical products in emerging markets such as China and India and these countries, with their large populations and growing share of middle class, are experiencing heightened demand for high-quality pharmaceuticals and medical services, presenting significant opportunities for pharmaceutical companies.<sup>31</sup>

In 2025, the industry is expected to make significant strides in expanding emerging markets and promoting cross-border integration and innovation.<sup>31</sup>

Note(s): (a) Deals have been arranged in descending order of deal value



#### Deal analysis by sub-sector, 2020-2024

#### **Biotechnology**

75 deals in 2024

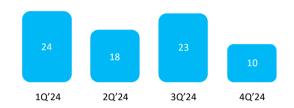
us**\$3.2** 

29.2% share of 2024 deal volume

#### 2024 review

In 2024, China's biotechnology deal activity across quarters declined due to regulatory challenges from the Federal Trade Commission (FTC) and the implementation of the Inflation Reduction Act (IRA) in the US, economic uncertainties including geopolitical tensions, and a shift towards smaller, earlier-stage deals.<sup>32</sup>

#### Biotechnology deal volume, 1Q'24-4Q'24



Source: Refinitiv

Top 3 China Biotechnology deals 2024<sup>(a)</sup>

	Announced date	Target	Stake	Target country	Bidder	Bidder country	Value (US\$ million)
1	Nov 2024	Biotheus Inc	100.0%	China	BioNTech SE	Germany	800.0
2	Mar 2024	SciClone Pharmaceuticals (Holdings)	69.3%	China	Silver Pegasus Investment	China	788.5
3	Jun 2024	Wuhan Zhongyuan Ruide Biological Products	100.0%	China	Chengdu Rongsheng Pharmaceutical	China	137.8

#### 2025 outlook

In 2025, deal activity is anticipated to grow, fueled by increased interest from US investors and major pharmaceutical companies drawn to China's innovative molecules. Additionally, strategic partnerships through licensing agreements are becoming more prevalent, facilitating the cost-effective entry of Chinese-developed drugs into global markets.<sup>33</sup>

"Partnerships between companies in Europe and China may be especially attractive ways for Chinese firms to reach international markets as uncertainties around the Biosecure Act may make it tougher to close deals with American companies." – Chemical & Engineering News, Dec 2024<sup>34</sup>

Note(s): (a) Deals have been arranged in descending order of deal value

### 4.

# Trends prevailing in the industry



# Firms are focused on technological innovation and investments along with seeking partnerships to enhance competitiveness

#### **Key trends**

#### Rise in focus on expansion of facilities

Players in China are enhancing their manufacturing capabilities in response to the increasing demand for high-tech products and the necessity to advance up the value chain (to sustain global competitiveness).



Revenue of China's large-scale pharmaceutical manufacturing companies, 2019-23 (US\$ trillion)<sup>35</sup>



#### Players are expanding in China to introduce new product categories

- In Oct 2024, Eli Lilly obtained two approvals in China for tirzepatide—one for Type 2 diabetes and the other for
  obesity. The company plans to expand its manufacturing site in Suzhou to produce these drugs and other pipeline
  medicines<sup>36</sup>
- In Sep 2024, Bayer inaugurated its new life science incubator, Bayer Co. Lab Shanghai, in the Shanghai Innovation
  Park. This expansion is part of Bayer's global strategy to foster open collaboration within the biotechnology
  ecosystem, providing state-of-the-art facilities and support for start-ups in cell and gene therapy, and oncology<sup>37</sup>

#### **Divestiture of Chinese business arms**

 $Multinational\ healthcare\ companies\ are\ divesting\ their\ businesses\ from\ China\ to\ focus\ on\ innovative\ drugs\ and\ cut\ reduction,\ driven\ by\ ongoing\ regulatory\ updates\ and\ the\ expansion\ of\ China's\ Volume-Based\ Procurement\ (VBP)^1\ program.$ 



#### Global companies are divesting from China to concentrate on core business segments and reduce costs

- In Aug 2024, UCB (a global biopharmaceutical company), executed a strategic divestment deal in China, marking its shift towards innovation and partnership. The transaction included the sale, divestment, and licensing of its mature neurology and allergy business<sup>38</sup>
  - Further, UCB has been exploring the launch of novel medicines in immunology, neurology, and rare diseases in China<sup>38</sup>
- In Feb 2024, I-Mab (US-based biopharma company) announced that its Chinese subsidiaries agreed to divest assets and business operations in China to I-Mab Biopharma (Hangzhou) and China-based investors, aiming to reduce operational costs<sup>39</sup>

Further, multinational healthcare companies have expedited divestitures in response to the expansion of China's volume-based procurement (VBP)(a) program to include more generics and medical devices.

Note(s):

(a) China's Volume-Based Procurement (VBP) program is a government initiative aimed at reducing the cost of medical consumables and pharmaceuticals by leveraging bulk purchasing. However, significant price reductions demanded by the VBP program have squeezed profit margins for many companies. As a result, some companies are choosing to focus on their core, more profitable segments and divest non-core businesses that are less competitive under the new pricing pressures



#### Advancement of products through AI and robotics

Al is being utilized in R&D as well as robotic surgeries, driving strategic partnerships and the creation of robotic laboratories, leading to increased efficiency and cost savings.



#### Integration of AI in R&D

#### Potential benefits of AI blend in the LS sector(a), 40

16.7 percent	enhancement in the success rate of new drug R&D with AI	US\$54.0 billion	annual reduction in drug- related R&D costs with Al- assistance	40.0-60.0 percent	savings of time costs during critical R&D phases
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#### Given the advantages of AI assistance, Chinese firms are incorporating AI in the clinical trial phases(b), 40

102	companies in China, involved in Al-assisted pharmaceutical R&D	76	Al-integrated pharmaceutical products in the preclinical research stage	30	Al-integrated pharmaceutical products in clinical trials nationwide
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#### To leverage Al's full potential in their work, companies are entering into collaborations with IT firms

In Dec 2024, Jingtai Technology (China based technology company) partnered with Microsoft China to cooperate on AI, large models, and laboratories initiatives, focusing on biomedicine and materials science, aiming to advance research, education, and technological innovation<sup>41</sup>

#### Furthermore, players are developing Al-driven platforms to improve operational efficiency

 Per Jan 2024 publication, China Pharmaceutical Valley has launched an Al-driven platform for new drug research and development, alongside the 'X-Gen Al New Drug Discovery and Design Research Center', utilizing Al to improve drug R&D and expedite the drug discovery and design process<sup>42</sup>

#### The Chinese government is also supporting the advancement of AI integration in life sciences to observe its benefits firsthand

 In July 2023, Chinese government departments issued the 'Interim Measures for the Management of Generative AI Services,' promoting innovative Gen AI applications in life sciences<sup>43</sup>

#### Outlook >>

#### Given the benefits of AI in LS industry, the adoption of the technology is poised to expand significantly



Source: Soochow securities Source: Soochow securities

"New technologies continue to emerge, and some institutions predict that by 2025, AI pharmaceutical manufacturing is expected to further help Chinese pharmaceutical companies improve their efficiency in new drug research and development." – Pudong Times, Jan 2025<sup>45</sup>

Note(s): (a) The facts are basis TechEmergence report, dated Dec 2023; (b) The facts are based on Pudong Government publication, dated Dec 2023

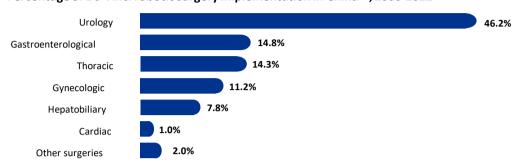




#### Implementation of robotics

The adoption of robotic systems in China is advancing surgical procedures, offering enhanced precision and quicker recovery for patients.

#### Percentage of Da Vinci robotic surgery implementation in China<sup>(a)</sup>, 2006-2022<sup>46</sup>



Source: National Library of Medicine

The rise of robotic surgeries in China has resulted in precision enhancements and reduced recovery times, encouraging Chinese life science firms to innovate in the field

- Per Mar 2024 publication, Jingtai Technology (a technology company) has established an Al-driven robotic laboratory workstation cluster at its Shanghai headquarters in Zhangjiang<sup>47</sup>
  - Leveraging Al-powered experimental robots, the company advances drug development, facilitating significant innovations in new therapies<sup>47</sup>
- Per Nov 2023 publication, Fosun Pharma (a pharmaceutical and healthcare company), in collaboration with Intuitive Surgical (involved in manufacturing robotic products), has been producing Da Vinci surgical robots locally in Shanghai<sup>48</sup>
  - The collaboration aimed to make advanced medical treatments more affordable in China and enhance the accessibility of surgical technology for Chinese patients<sup>48</sup>

"World-class medical devices and medicine are in high demand in China as the rising middle-class consumers become increasingly aware of health. The market demand also creates a huge opportunity for leaders like Da Vinci [surgical] robots." – SCMP, Nov 2023<sup>48</sup>

#### Outlook >>

Surgical robot market in China, 2021-32F (US\$ billion)49



Source: Desk research

The Asia Pacific region, particularly China, is anticipated to experience significant growth in the surgical robot market. Although currently dominated by imported systems, China's large patient population and increasing use of robotic-assisted surgeries, along with the development of domestic alternatives, are likely to drive market expansion<sup>50</sup>

Further regulations and policies are anticipated to govern the research, development, production, sales and use of surgical robots, aiming to safeguard patient rights and ensure the industry's sustainable growth<sup>50</sup>

Note(s): (a) Da Vinci is a surgical system introduced in the Chinese People's Liberation Army (PLA) General Hospital in 2006. By the end of 2022, a total of 314 Da Vinci surgical systems had been installed in 257 institutions, and more than 378,000 procedures had been performed.



#### Escalation in overseas collaborations to foster growth

Players are focusing on partnerships and collaborations in the LS sector to access advanced technologies, share research expertise, and enhance global competitiveness.



Players are partnering to adeptly navigate regulatory landscapes (making it easier to gain approvals and launch products internationally) and broaden their market reach.

	Date of publication	Co	llabora	ition	Synopsis
	Oct 2024	Hengrui (China based company)		Hercules (US based company)	Hengrui enhanced its global presence by acquiring a 19.9% stake in Hercules, enabling cost-effective overseas clinical development <sup>51</sup>
Biopharmaceutical	Jul 2024	Reindeer Biopharmaceuticals (China based company)		Innovent Biologics (China based company)	Reindeer acquired Fucosu's rights; Innovent gets 18.0 percent stake. Fucosu is approved for multiple myeloma and autoimmune diseases in China and the US <sup>52</sup>
Biopharm	Jun 2024	Parexel Pharmaceuticals (US based company)		Ruijin Hainan Hospital (China based hospital)	Formed a partnership to use real-world data and evidence to speed up drug approvals and enhance access to innovative treatments for Chinese patients <sup>53</sup>
	Feb 2024	Teva (Israel based company)		Jiangsu Enhua Pharmaceutical Co., Ltd (China based company)	Entered a distribution agreement in China for Atatan, aiming to improve availability for patients with Huntington's disease-related chorea and tardive dyskinesia <sup>54</sup>
Biotechnology	Sep 2024	Qingdao Vland Biotech (a Chinese biotechnology company)		-	The company plans to pursue domestic and international acquisitions in 2025, focusing on Southeast Asia, Russia, and Africa <sup>55</sup>
	Legend:	Produ	uct enha	ancement	Enhanced availability



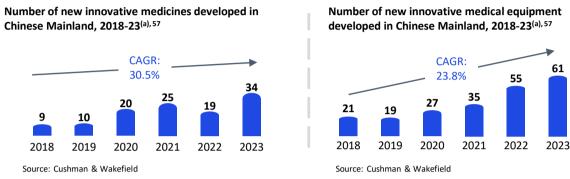
#### Expansion through the introduction of innovative drugs

China has seen a surge in innovative drug interest due to regulatory reforms (such as deepening the reform of regulation around drugs and medical devices to promote the high-quality development of the pharmaceutical industry) and a strategic push for healthcare advancements.





In 2024, the National Medical Products Administration (NMPA) approved over 110 innovative drugs, encompassing both domestic and imported varieties, while excluding traditional Chinese medicine, representing a substantial increase of 11.1 percent y-o-y.<sup>56</sup>



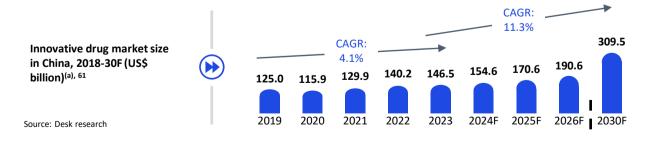
Currently, industry professionals are concentrating on innovative treatments for rare diseases, oncology, and obesity, aiming to enhance the drug pipeline both globally and locally

 In Nov 2023, AstraZeneca (UK-based biopharmaceutical company) and Eccogene (Shanghai-based biopharmaceutical company) signed an exclusive license agreement for ECC5004, an investigational oral once-daily GLP-1 receptor agonist intended to treat obesity, type-2 diabetes, and other conditions<sup>58</sup>

#### Outlook >>

Considering the increasing implementation of supportive policies, rising healthcare expenditure, and an aging population, the innovative drugs market is poised for significant growth in the coming years.

- Per Feb 2025 publication, the National Healthcare Security Administration (NHSA) accelerated the creation of China's first Category C Drug List to include high-cost, innovative drugs with significant clinical benefits that aren't covered by basic medical insurance<sup>59</sup>
  - The initiative aims to establish new payment pathways (methods for funding and reimbursing the costs of new and advanced medical treatments) and boost commercial funding for these medicines<sup>59</sup>
- Per Feb 2025 publication by drug times, several innovative drugs are anticipated to be launched in 2025, including treatments for rare diseases and novel therapies. Notably, Mazdutide<sup>(b)</sup> from Innovent Biologics (China-based company), is among the top expected launches<sup>60</sup>



Note(s): (a) Figures have been identified through webplot digitizer; (b) Mazdutide is a drug used for treatment of type 2 diabetes and obesity



#### Slowdown in IPO activity

Chinese life science companies have witnessed a decline in IPOs due to increased regulatory scrutiny (to prevent excessive fundraising and fraud) and market volatility.



IPO activity across various industries on Shanghai and Shenzhen stock exchange has declined steeply



Similarly, IPO activity in China's pharmaceutical industry significantly declined in 2023 compared to 2022



Increased regulatory scrutiny by the China Securities Regulatory Commission (CSRC) has led to skepticism and uncertainty in China's capital markets, particularly affecting pharmaceutical IPOs.

- Stricter measures on financial performance and promotional expenses have caused some companies to withdraw their IPO documents amid a weakening economy
  - In Feb 2024, Fapon Biotech (a biotechnology company) voluntarily withdrew its application documents, and its Shenzhen Stock Exchange Growth Enterprise Market IPO review status was changed to 'terminated' 64
  - In Mar 2024, Yisheng Biotech (a biotechnology company) voluntarily withdrew its application documents, and its IPO review status on the Science and Technology Innovation Board of the Shanghai Stock Exchange was changed to 'terminated'<sup>64</sup>

#### Outlook >>

Senior managers and investors in the global healthcare sector have expressed confidence in the positive trajectory of IPOs for 2025.

 Further, a 2024 market research report by Jefferies indicated that 20.0 percent of respondents anticipate equity financing and IPOs to be the predominant forms of transaction activities in 2025<sup>65</sup>

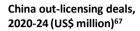
"The life sciences investment and M&A market is expected to continue to grow in 2025, building on a recovery in 2024." – Antoine Papiernik, Chairman and Managing Partner, Sofinnova Partners, Feb 2025<sup>66</sup>

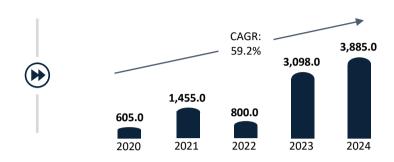


#### Surge in out-licensing transactions

China's slowing economy, tougher financing conditions in the life sciences sector, and stricter regulatory scrutiny have led to IPO delays and withdrawals, boosting out-licensing<sup>(a)</sup> deals as a quick funding alternative for startups.







Source: Jefferies



During 2020–24, the oncology sector recorded 41.1 percent CAGR in out-licensing transactions and the immunology sector exhibited a significant 122.4 percent CAGR $^{67}$ 

#### Key out-licensing asset deals by Chinese originators (ordered by deal size), 2024<sup>68</sup>

Originator	Licensee	Deal size (US\$ billion)	Licensed drug	Clinical stage	Therapeutic area
Hengrui	Kailera Therapeutics	6.0	HRS-7535, HRS- 9531, and HRS- 4729	Phase 2	Obesity
LaNova	MSD	3.3	LM-299	Phase 1	Oncology
Hansoh	MSD	2.0	HS-10535	Pre-clinical	Obesity
ImmuneOnco	InstilBio	2.0	IMM2510, IMM27M	Phase 1	Oncology
FutureGen	AbbVie	1.7	FG-M701	Phase 1	Immunology

#### Outlook

China's out-licensing deals in the pharmaceutical and biotech sectors are projected to rise in 2025 and beyond, driven by growing international interest in Chinese innovations and recognition of Chinese biopharma R&D capabilities.<sup>68</sup>

"Amid macroeconomic uncertainties and geopolitical headwinds, cross-border deals have seen remarkable growth over the past year, and the momentum appears to be even stronger now in 2025." – Pharmaceutical Executive, Feb 2025<sup>69</sup>

Note(s): (a) Out-licensing allows a company to grant another firm the rights to develop, manufacture, or market its drug or technology



# 5.

### **Key regulations**



# Government has been launching numerous policies and initiatives to promote the industry growth

#### Current policies for China's LS sector (1/2)(a)

	Date	Description
tor	Mar 2021	<ul> <li>14th Five-Year Plan<sup>70</sup></li> <li>The 14th Five-Year (2021-25) plan includes several policies specific for the life-science industry in China</li> <li>Increasing public and private R&amp;D investment by 7.0 percent annually during 2021-2025, with a focus on cutting-edge fields such as artificial intelligence, quantum information, integrated circuits, life and health, and bio breeding</li> <li>Providing support to establish global technology innovation centers in Beijing, Shanghai, and the Guangdong-Hong Kong-Macao Greater Bay Area, as well as comprehensive national science centers in Huairou, Zhangjiang, and Hefei</li> <li>The plan aims to develop progress in the inheritance and innovative development of traditional Chinese medicine (TCM), establish a safety evaluation system, and improve the modern regulatory system for TCM</li> </ul>
Life science sector	Mar 2021	Healthy China 2030 policy presents a comprehensive vision for the life science industry, aiming to enhance public health and healthcare services nationwide. Further, improving access to healthcare is expected to positively, albeit indirectly, impact the life sciences sector  Improving the quality and accessibility of public health services, which encompasses preventive care, health education, and disease control  Strengthening the capacity and quality of medical and health services, particularly in primary care, hospital management, and healthcare infrastructure  Advancing the medical industry, including pharmaceuticals, medical devices, and Traditional Chinese Medicine (TCM)  Implementing reforms to boost the efficiency and effectiveness of the healthcare system, integrating health insurance and leveraging digital health technologies  Tackling environmental factors that influence health, such as air and water quality, and fostering sustainable development



#### Current policies for China's LS sector (2/2)(a)

	Date	Description
	May 2022	<ul> <li>14th Five-Year Plan for the Development of the Bioeconomy<sup>71</sup></li> <li>The policy was released by the National Development and Reform Commission (NDRC), aiming to promote high-quality development in the bioeconomy sector</li> <li>Prioritizing advancements in gene sequencing, synthetic biology, gene diagnosis and treatment, stem cell therapy, immune cell therapy, and TCM</li> <li>Leveraging genetic testing and biogenetics for early detection of major diseases</li> <li>Enhancing advanced diagnostic technologies such as high-end medical imaging, and fostering further innovation in TCM</li> <li>Encouraging the adoption of intelligent surgical robots, digital therapeutics, and particle radiotherapy</li> <li>Enhancing priority approval policies for drugs and medical devices, and promoting simultaneous research and development (R&amp;D) applications for new drugs both domestically and internationally</li> </ul>
Life science sector	Apr 2024	<ul> <li>Anti-Monopoly Compliance Guidelines for Operators<sup>72</sup></li> <li>The pharmaceutical industry's high entry barriers often lead to market concentration and monopoly behaviors. In Nov 2021, the National Anti-Monopoly Bureau issued the 'Anti-Monopoly Guidelines on the Field of APIs'.</li> <li>Further, new guidelines were established in 2024, which are a significant upgrade over the 2020 guidelines, with five key improvements: full-process compliance incentive rules, additional reference examples, principles for a tiered compliance management system, identification of compliance risks in monopolistic behavior, and enhanced compliance management and procedural standards</li> </ul>
	Jan 2025	<ul> <li>Incentive policies for life science companies<sup>73</sup></li> <li>China has implemented several policies and regulations to incentivize biopharmaceutical innovation. Key measures include:         <ul> <li>Selected pharmaceutical products, such as orphan drugs and pediatric drugs, receive regulatory data protection and marketing exclusivity</li> <li>Pilot programs in certain provinces aim to shorten approval timelines for clinical trial authorizations and supplemental applications</li> </ul> </li> <li>Foreign marketing authorization holders can use Chinese manufacturing facilities or outsource to local contract manufacturing organizations</li> <li>Innovative medical devices and high-end equipment are eligible for expedited approval processes and the "Full-Chain Support for Innovation" initiative provides policy coverage for the entire drug development cycle, including financing, approval processes, and commercialization</li> </ul>



#### Current policies as per sub-sector (1/3)(a)

	Date	Description
Medical device	Aug 2019	<ul> <li>Medical Device Unique Identification System Rules<sup>74</sup></li> <li>NMPA issued a notice on the implementation of the Unique Device Identification (UDI) system for medical devices, applicable to high-risk Class III devices, including active and passive implantable devices, with a mandatory implementation date of Oct 1, 2020, for all newly produced devices in these categories</li> <li>Manufacturers are required to submit UDI information for the smallest sales unit and higher-level packaging to the UDI database before marketing the devices</li> <li>This initiative aims to enhance the traceability and safety of medical devices in China</li> </ul>
	Nov 2019	<ul> <li>Medical device classification 75</li> <li>NMPA oversees the regulation of medical devices in China, emphasizing lifecycle management, scientific supervision, and societal co-governance</li> <li>Medical devices are classified into three categories based on risk levels: Class I (low risk), Class II (moderate risk), and Class III (high risk). All devices must be registered with the NMPA, with specific requirements for overseas manufacturers</li> <li>The regulations aim to ensure the safety, efficacy, and quality of medical devices while promoting innovation and aligning with international standards</li> </ul>
	Jul 2022	<ul> <li>Guidelines for Technical Review of Medical Device Cybersecurity Registration 76</li> <li>NMPA issued new guidance for the registration of medical device software, applicable to 18 product categories, including both stand-alone software and software integrated into physical devices</li> <li>It emphasizes the evaluation of the software life cycle, focusing on design, verification, and cybersecurity, in accordance with international standards</li> <li>Manufacturers are required to address various technical aspects such as network security, cloud computing, artificial intelligence, interoperability, and functional safety</li> <li>This initiative aims to enhance the safety and effectiveness of medical device software in the Chinese market</li> </ul>
	Jan 2025	<ul> <li>Regulation on the Supervision and Administration of Medical Devices<sup>77</sup></li> <li>NMPA has revised the "Regulation on the Supervision and Administration of Medical Devices," effective Jan 7, 2025</li> <li>The regulation emphasizes comprehensive control, scientific supervision, and societal co-governance, aiming to enhance lifecycle regulation of medical devices         <ul> <li>Key changes include clearer responsibilities for registrants and filers, more specific requirements for registration application materials, and support for industrial policies to promote innovation</li> </ul> </li> <li>It also aligns with international standards and provides incentives for overseas manufacturers to enter the Chinese market</li> </ul>



#### Current policies as per sub-sector (2/3)(a)

	Date	Description
Pharmaceutical Pharmaceutical	Aug 2015	<ul> <li>Reforming the Review and Approval System for Drugs and Medical Devices<sup>78</sup></li> <li>The guideline, enacted by the State Council, seeks to implement the State Council's recommendations on reforming the evaluation and approval system for drugs and medical devices, as well as the Central Committee's directives on fostering pharmaceutical innovation</li> <li>These guidelines aim to expedite the development and assessment of innovative drugs by creating a standardized framework for pharmaceutical research, thereby enhancing the quality and efficiency of drug development and evaluation processes</li> </ul>
	Dec 2019	<ul> <li>Drug Administration Law<sup>79</sup></li> <li>The Law aims to strengthen drug administration, ensure drug quality, and protect public health. It covers all activities related to drug development, manufacturing, distribution, and use within China</li> <li>It emphasizes risk management, whole-chain supervision, and social co-governance to ensure the safety, effectiveness, and accessibility of drugs</li> </ul>
	May 2021	<ul> <li>Comprehensively Strengthening the Construction of Drug Regulatory Capacity         <ul> <li>The State Council has issued guidelines to comprehensively strengthen drug regulatory capacity in China, aiming to enhance the legal and regulatory framework, improve standards management, and boost technical review capabilities</li> </ul> </li> <li>They also focus on optimizing traditional Chinese medicine evaluation, enhancing inspection and enforcement systems, and improving adverse reaction monitoring</li> <li>The initiative seeks to build a robust, efficient, and authoritative drug regulatory system to ensure drug safety and meet public health needs</li> </ul>
	Jul 2024	<ul> <li>Supporting the Innovation and Development of the Whole Chain of the Biopharmaceutical Industry</li> <li>The Shanghai Municipal Government has issued guidelines to enhance biopharmaceutical innovation and development         <ul> <li>These guidelines aim to advance technologies like cell and gene therapy, mRNA, synthetic biology, and regenerative medicine, while integrating AI in drug research</li> </ul> </li> <li>The initiative also seeks to improve clinical resources, expedite drug and device approvals, and foster a conducive environment for commercializing innovations</li> </ul>



#### Current policies as per sub-sector (3/3)(a)

	Date	Description
<b>Pharmaceutical</b>	Jan 2025	<ul> <li>Promoting the High-Quality Development of the Pharmaceutical Industry</li> <li>The policy outlines China's comprehensive reforms to enhance the regulatory framework for drugs and medical devices, aiming for high-quality development</li> <li>By 2027, the focus is on improving regulatory systems, streamlining approvals, and ensuring quality and safety. Further, by 2035, the goal is regulatory modernization and global competitiveness</li> <li>Key measures include supporting innovation, improving approval efficiency, addressing regulatory challenges, aligning with international standards, and strengthening regulatory capacity</li> </ul>
	Jul 2017	<ul> <li>Measures for the Safety Management of Biotechnology Research and Development</li> <li>The Ministry of Science and Technology of China has issued the measure to regulate biotechnology R&amp;D activities and ensure biosafety.</li> <li>The measures categories activities into high, medium, and low-risk levels based on potential risks, and outline responsibilities for individuals and organizations involved in biotechnology R&amp;D</li> <li>They emphasize compliance with laws, ethical standards, and international obligations, and mandate risk assessments, safety management protocols, and emergency response plans</li> <li>Further, it aims to promote healthy and orderly development of biotechnology while safeguarding national biosafety</li> </ul>
Biotechnology	Oct 2024	<ul> <li>Pilot work plan for the phased production of biological products</li> <li>The National Medical Products Administration (NMPA) has launched a pilot program for segmented production of biological products to enhance quality management and risk control for marketing authorization holders and local regulatory authorities         <ul> <li>It includes guidelines for the approval, quality management, and post-marketing supervision of segmented production</li> </ul> </li> <li>The program is set to run until December 31, 2026, with comprehensive evaluations to be conducted before its conclusion</li> </ul>
	Oct 2024	<ul> <li>Promoting Guangdong's biopharmaceutical industry high-quality development</li> <li>The Guangdong Provincial Government's action plan aims to boost biopharmaceutical innovation, support the entire lifecycle of drugs and devices, and improve coordination across research, approval, production, and commercialization processes</li> <li>Key initiatives include building advanced research platforms, fostering clinical research, accelerating the approval process for new drugs, and strengthening intellectual property protection</li> <li>By 2027, the province aims to achieve a biopharmaceutical and health industry cluster worth over US\$137.9 billion, positioning Guangdong as a leading biopharmaceutical hub</li> </ul>



#### Current policies pertaining to implementation of AI in LS industry<sup>(a)</sup>

	Date	Description
Allmplementation	Mar 2022	<ul> <li>Guideline on artificial intelligence medical devices</li> <li>The guideline has been issued by NMPA, which provides comprehensive directives for manufacturers on defining, designing, registering, and managing the life cycle of AI medical devices. It applies to Class II and III AI independent software and medical devices containing AI software components. Key aspects covered include:         <ul> <li>Life-cycle management: Emphasizes good manufacturing practices and on-site inspections, focusing on demand analysis, data collection, algorithm design, verification, confirmation, and update control</li> <li>Registration requirements: Specifies naming conventions, software function names, and the need for algorithm research reports. It also outlines the inclusion of performance indicators based on evaluation databases</li> <li>Auxiliary decision-making products: Requires detailed algorithm performance evaluation summaries, clinical evaluation summaries, and decision-making indicator</li> </ul> </li> </ul>
	Jul 2019	<ul> <li>Key points for the review of medical device software for deep learning assisted decision-making</li> <li>Issued by the NMPA, the guideline focuses on four main areas for the registration of Al-aided software:         <ul> <li>Needs analysis: Identifying the specific requirements and intended use of the software</li> <li>Data collection: Ensuring high-quality data is gathered for algorithm training</li> <li>Algorithm design: Developing robust algorithms with strong generalization capabilities</li> <li>Verification and validation: Conducting thorough testing to confirm the software's performance and safety</li> </ul> </li> <li>The guideline also addresses software updates, emphasizing the importance of version control and quality management systems</li> </ul>
	Jul 2021	<ul> <li>Guiding principles for the classification and definition of artificial intelligence medical software products</li> <li>The guideline provides a framework for categorizing AI medical software based on its intended use and risk level. It emphasizes:         <ul> <li>Classification: Differentiating between Class II and Class III devices based on their functions and associated risks</li> <li>Regulatory requirements: Outlining the necessary documentation and evaluation criteria for registration</li> <li>Performance and safety: Ensuring thorough testing and validation to maintain high standards of safety and effectiveness</li> </ul> </li> <li>It aims to streamline the regulatory process and ensure the safe integration of AI technologies in medical applications</li> </ul>

# G. KPMG services in Life Sciences



### **How KPMG can help**

A global organization of KPMG life sciences professionals provides support to the world's leading pharmaceutical, biotech, medical device and other companies in the sector.

KPMG member firms help life sciences companies to navigate complex business challenges such as delivering better and lasting financial results for stakeholders, leveraging technology to help increase competitive advantage, and unlocking the power of ESG to transform businesses and build a more sustainable future.

In these challenging times, business leaders require insights and guidance from professionals they can trust. KPMG uses a multi-disciplinary approach which allows us to pull resources from across geographies, disciplines and areas of experience across the life sciences sector, including:

- Strategic Advisory
- Deal Sourcing and Evaluation
- Commercial Due Diligence
- Market and Competitive Intelligence
- Digital and Technology Transformation
- Risk and Compliance
- Tax Transformation

#### **For More Information**



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# 7. Appendix



### **Source citations (1/6)**

S. no.	Publication title	Publisher	Time of publication	Source
1	China inflation hits nine-month low in December	The Hindu	Jan-25	<u>URL</u>
2	Inflation's Impact on the Pharmaceutical Industry	GEP	Jul-22	<u>URL</u>
3	China's economic slowdown: Growth falls to 4.6%, concerns over productivity rise	Hindustan Times	Jan-25	<u>URL</u>
4	China's central bank unveils most aggressive stimulus since pandemic	Reuters	Sep-24	<u>URL</u>
5	Chinese economic slump hurts pharma firms invested in the region	Pharmaceutical Technology	Aug-23	<u>URL</u>
6	Will China's stimulus be enough to get its economy out of deflation?	Peterson Institute for International Economics	Nov-24	<u>URL</u>
7	Yuan pressured by depreciation expectations; long-term yields fall to record lows	Reuters	Dec-24	<u>URL</u>
8	Trump faces pressure from US industry over China tariff on medicines	Reuters	Feb-25	<u>URL</u>
9	Donald Trump's trade tariffs on Canada, Mexico and China explained visually	Alja Zeera	Feb-25	URL
10	China Loan Prime Rate	Trading Economics	-	<u>URL</u>
11	China keeps benchmark lending rates steady as Fed signals fewer cuts ahead	CNBC	Dec-24	URL
12	Nip it in the bud: the impact of China's large-scale free physical examination program on health care expenditures for elderly people	Springer Nature	Jan-25	<u>URL</u>
13	China launches initiative to tackle obesity surge	Government of China	Sep-24	URL
14	2023 Hypertension Target Center Construction Status Report	DrVoice	Nov-23	URL
15	An investigation into the health status of the elderly population in China and the obstacles to achieving healthy aging	Scientific Reports	Dec-24	URL



### **Source citations (2/6)**

S. no.	Publication title	Publisher	Time of publication	Source
16	Chronic disease and multimorbidity in the Chinese older adults' population and their impact on daily living ability: a cross-sectional study of the Chinese Longitudinal Healthy Longevity Survey (CLHLS)	Archives of Public Health	Feb-24	<u>URL</u>
17	Estimated number of new cases from 2022 to 2035, Incidence, Both sexes, age [0-85+]	International Agency for Research on Cancer	-	<u>URL</u>
18	IDF Diabetes Atlas	International Diabetes Federation	-	<u>URL</u>
19	Analysis of the current status and development trend of China's pharmaceutical industry in 2024	Gonyn	Oct 2024	<u>URL</u>
20	"A Panoramic Map of China's Medical Device Industry in 2025" (with market status, competition landscape and development trends, etc.)	Sina	Feb 2024	<u>URL</u>
21	China Al Medical Device Industry	Leadleo	Jul 2023	<u>URL</u>
22	3D Printing Medical Devices Market to Soar to \$16.5 Billion by 2034	3Ddayin	May 2024	<u>URL</u>
23	The market size of surgical robots is expected to reach 30 billion	Sina	Sep 2024	<u>URL</u>
24	Medtec Active Medical Devices Exhibition   Wearable Medical Devices in my country: Development History, Market Prospects and Future Trends	Medtec	Jul 2024	<u>URL</u>
25	Life Sciences M&A Trends for 2023 and 2024 (Through End of Q3) in Greater China	Goodwin	Nov-24	<u>URL</u>
26	STATE OF CHINA LIFE SCIENCE: 2021	China Bio	May-21	<u>URL</u>
27	China Life Sciences: 2024 Year in Review	Arnold & Porter	Jan-25	<u>URL</u>
28	China's Medical Device Makers Pivot to Premium Products Amid Industry Slowdown	Yicai Global	Dec-24	<u>URL</u>
29	China's 2025 M&A transactions may rise 15% as volume recovers from rock bottom	Yahoo! Finance	Dec-24	<u>URL</u>
30	M&A revival with a 71% increase in billion-dollar transactions in Q1 2024	Pharmaceutical Technology	May-24	<u>URL</u>



### **Source citations (3/6)**

S. no.	Publication title	Publisher	Time of publication	Source
31	2024 Pharmaceutical Transaction "Top List": Year-end in-depth review and future trend outlook	Phirda	Jan-25	<u>URL</u>
32	Industry M&A volume declined 8% this year compared to '23	Fierce Biotech	Dec-24	<u>URL</u>
33	U.S. investors, Big Pharma race to find new medicines in China	CNBC	Feb-25	<u>URL</u>
34	Why Chinese biotech is attracting more global attention	C&EN	Dec-24	<u>URL</u>
35	Operating income of China's large-scale pharmaceutical manufacturing enterprises from 2015 to 2023	Qianzhan	Oct-24	<u>URL</u>
36	Lilly's manufacturing splurge continues with \$200M expansion in China	Fierce Pharma	Oct-24	<u>URL</u>
37	Bayer Co.Lab Shanghai opens as part of global expansion of life science incubator network	Bayer Global	Sep-24	<u>URL</u>
38	UCB to Accelerate Innovation and Strategic Partnerships, Divesting Mature Product Portfolio in China	UCB	Aug-24	<u>URL</u>
39	I-Mab Signs Agreement to Divest its Assets and Business Operations in China	PR Newswire	Feb-24	<u>URL</u>
40	Continue to "increase investment" in artificial intelligence × biomedicine, the 2024 Biomedicine Intelligent Sharing Conference will be launched	Pudong Government	Apr-24	<u>URL</u>
41	Jingtai Technology and Microsoft China announced a strategic collaboration to drive transformation in the fields of life sciences	Futubull	Dec-24	<u>URL</u>
42	A new platform has been added! China Pharmaceutical Valley Al technology helps new drug research and development	Government Office	Jan-24	<u>URL</u>
43	How to Interpret China's First Effort to Regulate Generative AI Measures	China Briefing	Jul-23	<u>URL</u>
44	In depth report on the pharmaceutical and biological industry	Soochow securities	Feb-25	<u>URL</u>
45	Insilicon Intelligence Technology's headquarters is located in Pudong, helping the world's first potential AI pharmaceutical project to "accelerate"	Pudong Government	Jan-25	<u>URL</u>



### **Source citations (4/6)**

S. no.	Publication title	Publisher	Time of publication	Source
46	Robotic surgery in China	National Library of Medicine	Aug-23	<u>URL</u>
47	Al+Pharmaceuticals: Pudong's biopharmaceutical industry ushers in the era of "smart medicine"	Pudong Government	Mar-24	<u>URL</u>
48	Fosun Pharma prepares to deliver Da Vinci surgical robots to make advanced medical treatment affordable to Chinese patients	SCMP	Nov-23	<u>URL</u>
49	The market size of surgical robots is expected to reach 30 billion	Sina	Sep-24	<u>URL</u>
50	2024 China Surgical Robot Industry Research Report	Qianji Investment Bank	Apr-24	<u>URL</u>
51	Understanding the NewCo Model: A Trending Approach of Chinese Pharmaceutical Companies	Morgan Lewis	Oct-24	<u>URL</u>
52	Reindeer Bio and Innovent Biologics deepen strategic cooperation to jointly promote innovative development in the field of cell therapy drugs	IASO	Jul-24	<u>URL</u>
53	Parexel Announces Innovative Partnership with Ruijin Hainan Hospital	Parexel	Jun 2024	<u>URL</u>
54	Teva and Jiangsu Enhua Pharmaceutical Co., Ltd. have reached a strategic cooperation to expand the accessibility of Atatan® in China	Teva	Feb-24	<u>URL</u>
55	Qingdao enterprises start a new round of globalization layout beyond Southeast Asia	Qingdao Daily	Aug-24	<u>URL</u>
56	New drug approvals hit a new high in 2024	Pharmaceutical Economic News	Feb-25	<u>URL</u>
57	THE CHINESE MAINLAND LIFE SCIENCES SECTOR	Cushman & Wakefield	Jun-24	<u>URL</u>
58	Global pharma invests in China on the strength of a booming national biotech sector	IMD	Feb-24	<u>URL</u>
59	NHSA Fast-Tracks China's First Category C Drug List to Expand Commercial Funding for Innovative Medicines	NRDL+	Feb-25	<u>URL</u>
60	The top ten most anticipated drugs in 2025, two from GSK and Vertex, and Chinese company Innovent Biologics on the list! \$29 billion!	Drug Times	Feb-25	<u>URL</u>



### **Source citations (5/6)**

S. no.	Publication title	Publisher	Time of publication	Source
61	A Panoramic View of China's Innovative Drug Industry in 2025 (with market status, competition landscape and development trends, etc.)	Sina	Jan-25	<u>URL</u>
62	Chinese IPOs plummet amid tough policy environment as focus shifts offshore	S&P Global	Aug-24	<u>URL</u>
63	China Biopharmaceutical Investment and Financing Blue Book	СРЕА	Jul-23	<u>URL</u>
64	How long will the medical IPO pullback trend last?	BioClub	Apr-24	<u>URL</u>
65	2025 Biopharmaceutical Industry IPO Trend Report Released	ByDrug	Jan-25	<u>URL</u>
66	Biotech and medical technology IPOs are expected to recover	Pharmaceutical Economic News	Feb-25	<u>URL</u>
67	China out-licensing deals at record level in '24 – likely more ahead	Jefferies	Dec-24	Accessed via Refinitiv
68	Fueling global pharma pipelines: The rise of China's innovations	Simon Kucher	Feb-25	<u>URL</u>
69	Navigating Cross-Border Pharma Deals: Key Trends and Lessons Out of China	Pharmaceutical Executive	Feb-25	<u>URL</u>
70	China's 14th five-year plan	United Nations Development Programme	Jun-21	<u>URL</u>
71	Another trillion-dollar track! The 14th Five-Year Plan for the Development of the Bioeconomy is released	Carrier Biomed	May-22	<u>URL</u>
72	Legal tests for excessive pricing and their implementation under China's anti-monopoly law	Routledge	Jan-25	<u>URL</u>
73	China Announces Major Policy Incentives for Life Sciences Companies	Ropes & Gray	Jan-25	<u>URL</u>
74	Notice of the State Food and Drug Administration on matters related to the first batch of medical device unique identification work	NMPA	Aug-19	<u>URL</u>
75	China Medical Device Regulations – An Overview	China Med Device	Nov-19	<u>URL</u>



### **Source citations (6/6)**

S. no.	Publication title	Publisher	Time of publication	Source
76	NMPA Issues New Guidance for Reviewing Medical Device Software in China	Asia Actual	Jul-22	<u>URL</u>
77	China's Revised Medical Device Regulation: A Clearer Gateway for Overseas Manufacturers Seeking Market Expansion	China Med Device	Jan-25	<u>URL</u>
78	China to Reform Review and Approval Process for Drugs and Medical Devices	Petrie-Flom Center	Oct-15	<u>URL</u>
79	People's Republic of China Drug Administration Law	NMPA	Dec-19	<u>URL</u>
80	China deepens comprehensive reform to strengthen drug, medical device regulation	NMPA	Jan-25	<u>URL</u>
81	Shanghai unveils guidelines to boost clinical research and biopharmaceutical industry	International Services Shanghai	Aug-24	<u>URL</u>
82	Notice of the Ministry of Science and Technology on Issuing the "Measures for the Safety Management of Biotechnology Research and Development"	Ministry of Science and Technology	Jul-17	<u>URL</u>
83	China's NMPA Announces a Pilot Plan to Allow Non-End-to-End Manufacturing of Biologics	Ropes & Gray	Oct-24	<u>URL</u>
84	Notice of the State Food and Drug Administration on the printing of the pilot work plan for the phased production of biological products	NMPA	Oct-24	<u>URL</u>
85	Guideline on Artificial Intelligence Medical Devices	China Med Device	Jan-22	<u>URL</u>
86	NMPA (CFDA) Final Guideline on Al-Aided Software: Propels China to the Leadership of Al Applications	China Med Device	Jul-19	<u>URL</u>
87	NMPA Announcement on Guidance for the Classification Defining of AI-Based Medical Software Products	NMPA	Jul-21	<u>URL</u>

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