



2023 China Life Sciences and Health Care Investment and M&A Market Outlook

December, 2022



Content

Preface	1
1. M&A Market Realities in the Life Sciences and Health Care Industry	3
1.1 Review of the M&A Market in China's Life Sciences and Healthcare Industry (2021 to the first half of 2022)	4
1.2 Analysis of M&A Transactions in the Life Sciences and Healthcare Industry by Segment	5
1.3 Analysis of Cross-Border M&A Transactions in the Life Sciences and Healthcare Industry	8
1.4 Changes in Licensing Transactions for Life Sciences Products	13
2. Review of the Primary Market in the Life Sciences and Healthcare Industry	18
2.1 Review of the Primary Market in China's Life Sciences and Healthcare Industry (2021 to the first half of 2022)	19
2.2 Segment analysis	24
2.3 Analysis of domestic investment and financing transactions	27
2.4 Technology companies' cross-industry investment	29
2.5 In-depth analysis of inbound and outbound investment	30
3. Outlook for the life sciences and healthcare industry in China	37
3.1 Continuous advances in the development of Healthy China 2030 drawing a people-oriented pharmaceutical and medical development blueprint	38
3.2 Multi-cooperation model unlocked among multinational pharmaceutical companies according to the Original and Innovative Development Plan	42
3.3 Preferential policies herald opportunities for TCM industry	43

3.4 Accelerated localization and introduction of high-end products by overseas medical equipment companies amid the preference for domestic alternatives	44
3.5 Rapid growth of demand for consumer medical services following improvement of industry standardization and post-epidemic consumption rebound	46
4. Conclusion	47
5. Appendix	50
Top 10 investment and financing transactions by value from 2021 to H1 2022	51
Top 10 M&A transactions by value from 2021 to H1 2022	52
Appendix I: Mergermarket transaction inclusion criteria	53
Appendix II: Changes in secondary market indexes	55
Appendix III: Performance of unprofitable listed life sciences and healthcare companies (H shares and A shares)	56
Appendix IV: Performance of the top 30 listed life sciences and healthcare companies by market capitalization	59
Appendix V: Performance of life sciences and healthcare companies listed in 2022 (H shares and A shares)	60

Preface

The global economy is adjusting to high inflation. Central banks are continuously tightening monetary policy that, along with geopolitical conflicts, and energy and food shocks, have halted global growth. Factors such as a complex and volatile international environment and repeated COVID-19 outbreaks pose numerous challenges to China's economic growth.

After a downturn in the second quarter of 2022, the Chinese economy is gaining momentum as GDP growth reaches 3.9 percent year-on-year in the third quarter, and cumulative growth of 3 percent in the first three quarters. The investment structure is improving and somewhat aligned with government ambitions, as investment in high-tech industries growing at a significantly higher rate than overall investment. In terms of international circulation, China's foreign trade and the officially reported foreign investment, lead to believe that the competitive edge of Chinese products and the ability of the Chinese market to attract key global resources remains intact. However, the risks of a slowing domestic consumption pattern together with a weakening external demand, behind the fall in exports in October is worth noting, demonstrates the importance of speeding up efforts to boost the economy on a number of fronts.

The life sciences and healthcare (LSHC) capital market underwent significant changes in 2022. Deal volume began to decline in the second half of 2021 amid the global economic downturn. Investors started to favor earlier investment rounds. Meanwhile, companies faced production and operation challenges as COVID-19 hindered commercial activities in Shanghai and Guangzhou. During the second half of 2021, capital markets started to cool as investors began to adjust biotech valuations. As a result, some biotech companies were struggling with the promotion of innovation project due to higher financial burden and cash-strapped. The valuation corrections continued until mid-2022, when capital markets gradually resumed activity. During the first half of 2022, there were 785 fundraising events in the LSHC industry which reaching the second highest point in history since 2019.

In November 2022, the Communist Party of China (CPC) convened its 20th National Congress in Beijing, highlighting the priorities of the 14th Five-Year Plan. Words that frequently appeared in the 14th Five-Year Plan, include "security", "innovation", "reform", "international", and "science and technology", which are emphasized and used throughout the report to the 20th National Congress of the CPC. Among them, "safety" and "innovation" are two vital priorities for achieving high-quality development, and critical elements for the development of the LSHC: Innovation drives technological breakthroughs, and safety

guarantees basic medical needs. Stabilizing economic growth is expected to become more critical following the 20th CPC National Congress. As China sticks to its dynamic zero-COVID policy, it will become increasingly important to implement control measures scientifically and precisely. Expect to see COVID-related measures gradually adjust, boosting the confidence of investors and foreign businesses, evident by the November rally in the A-share and H-share markets.

Building a Healthy China is the primary objective for developing the LSHC industry. With medical reform as a critical focus, to create a new model driven by innovation and supported by basic research and capital. In 2021, the National Health Commission, the National Medical Products Administration (NMPA), and other institutions elucidated the importance of and the way forward for original innovation, facilitating the upgrading of the LSHC industry towards more differentiated innovation and thus enhancing China's global competitiveness. Medical payment reform continues to deepen as the diversified payment system matures. Simultaneously, consumer healthcare, such as aesthetic medical and digital healthcare, will see new growth opportunities as the domestic economy gradually recovers.

Looking ahead, we expect capital market activity in the LSHC industry to gradually recover in the post-COVID era as the pandemic stabilizes and related control measures are relaxed. The LSHC industry will continue to upgrade, as the sector is driven primarily by the goals of building and strengthening Healthy China plan. Standardizing the industry and expanding healthcare coverage on both the supply and demand sides will deepen medical reform. Coordinated development model for domestic and foreign capital and the accelerated localization of foreign companies are the two major trends in the life science industry. Underlying the principle of original innovation and increasing foreign investments in China. Meanwhile, the healthcare sector will see policy opportunities for traditional Chinese medicine (TCM) as the country continues to support both TCM and Western medicine. A rapid increase in demand for consumer healthcare services brought by industry standardization and a post-epidemic rebound in consumption.

Deloitte anticipates that driven by the above trends, China's LSHC industry will usher in great opportunities for development and consolidation, becoming major potential growth drivers for M&A (mergers and acquisitions) activities.

1 M&A Market Realities in the Life Sciences and Health Care Industry ¹

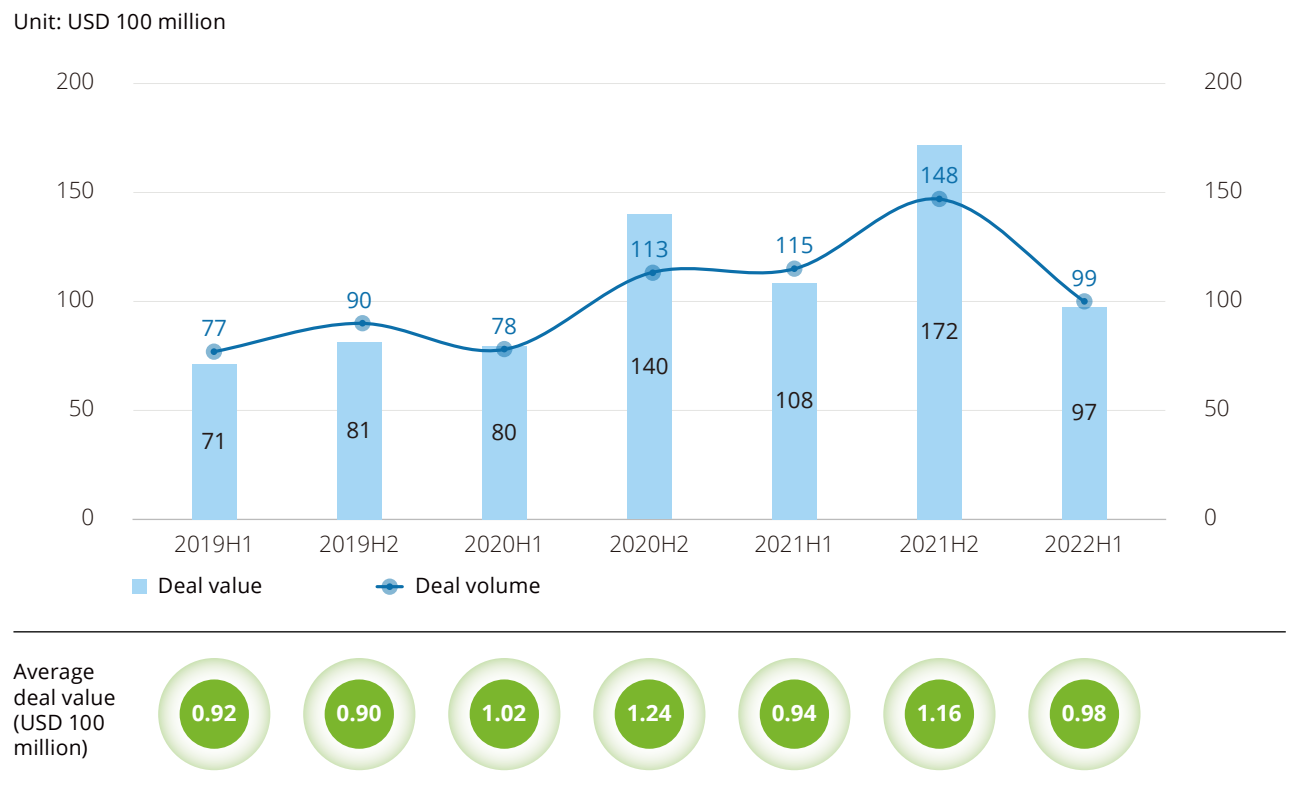
1.1. Review of the M&A Market in China's LSHC Industry (2021 to the first half of 2022)

In 2021, M&A activity in China's LSHC industry increased compared with that in 2020, with the transaction volume reaching 263 (excluding deals with undisclosed value and mega deals that valued more than USD 1 billion), an increase of 72 compared with that in 2020, and the disclosed deal value reaching USD 28 billion, a year-on-year increase of 27.9%. In 2021, there were 109 deals valued more than USD

100 million each, with more than half coming from the biotech and drugs sectors (Figure 1).

Capital from China and abroad cooled off as investors took a more cautious approach to M&A activity in the first half of 2022 amid domestic pandemic control measures and the tightening of the global fiscal and monetary policies. The volume and value of M&A deals fell year-on-year in the first half of 2022, but remained higher than in 2019 and 2020.

Figure 1: M&A Transactions in the LSHC Industry (2019 -2022 H1)



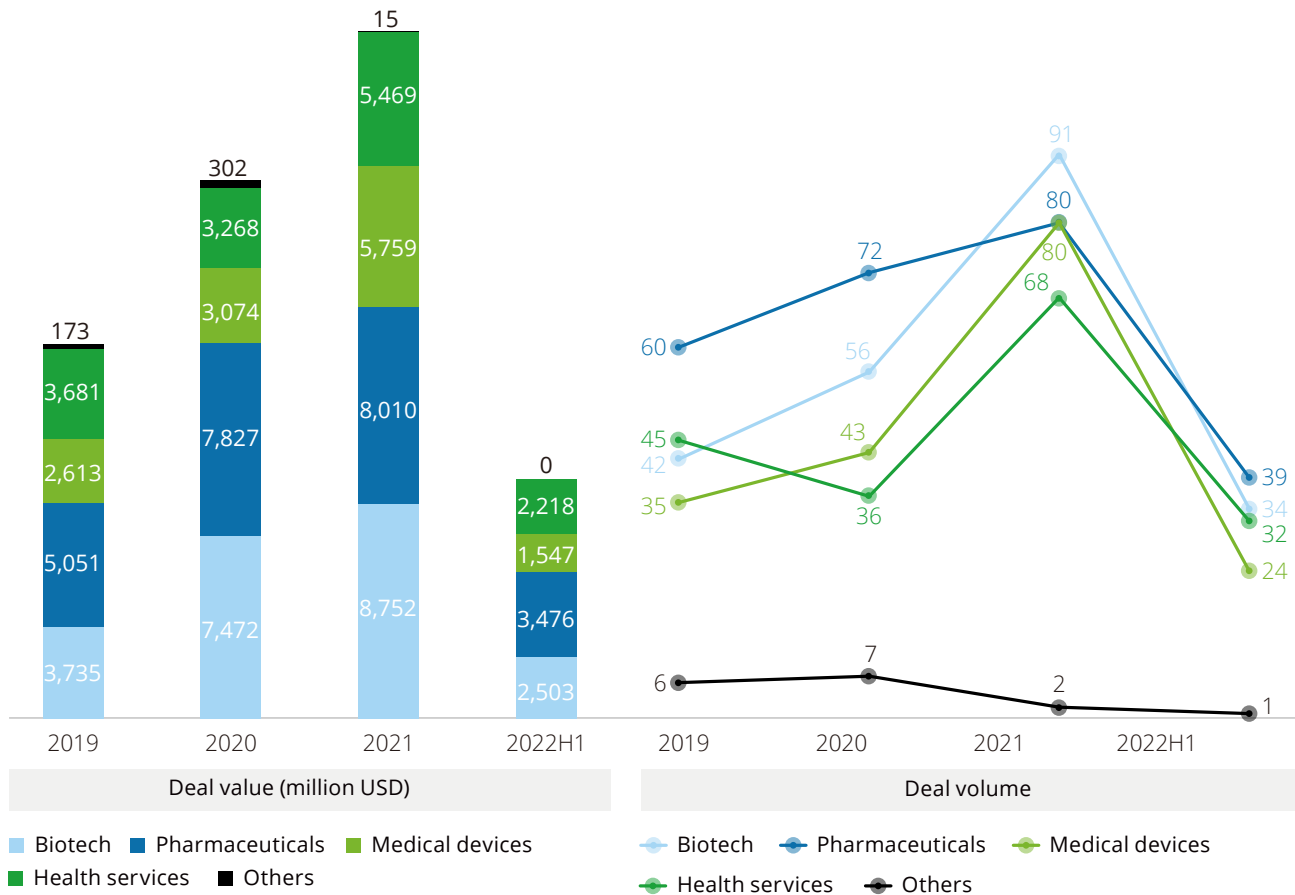
Note: The figure above excludes 116 deals with undisclosed value and 17 deals valued more than USD 1 billion each.
Sources: Mergermarket, Deloitte Research

1.2. Analysis of M&A Activities in the LSHC Industry by Segment

M&A activity in the China's LSHC industry decreased year-on-year during the first half of 2022, with higher declines in medical services and biotech segments. While the pharmaceutical segment remained highly

active thanks to national policies encouraging medical innovation, with a total of 39 M&A transactions, up 34.5% from the first half of 2021. Meanwhile, average deal sizes continued to drop yearly due to general market weakness and valuation adjustments (Figure 2).

Figure 2: Volume of M&A Transactions in the LSHC Industry by Segment



Note: The transaction value in the above bar diagram on the left excludes 116 deals with undisclosed value and 17 deals valued more than USD 1 billion each. Sources: Mergermarket, Deloitte Research



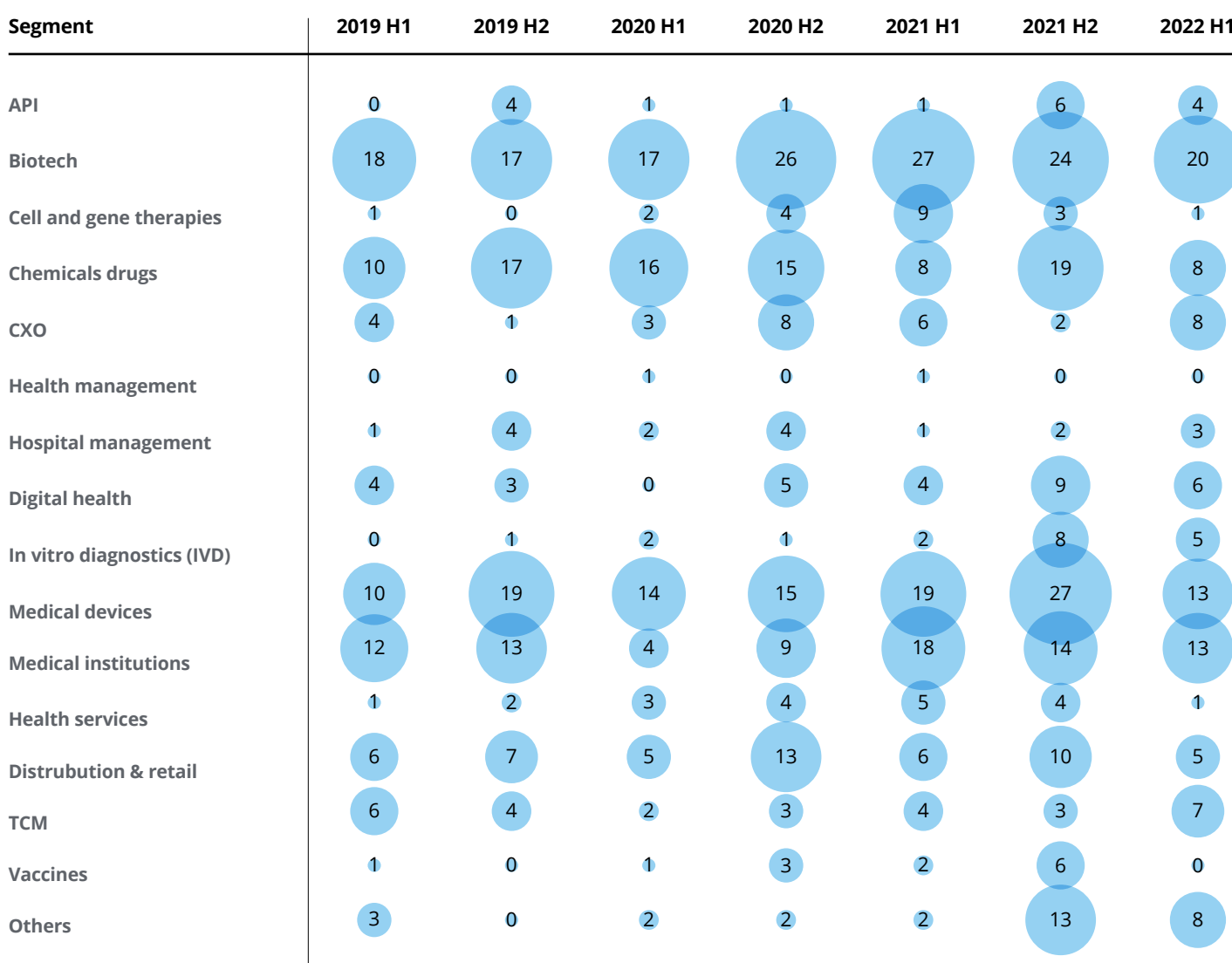
In terms of segments, biologics (biotech + cell and gene therapies) remained the hottest area, followed by medical devices (Figure 3). The volume of M&A deals declined in the second half of 2021 and the first half of 2022 due to valuation corrections and the harsh "capital winter". Particularly in terms of deal value, investors were more cautious and preferring small to mid-sized deals.

Instead, more capital is going into innovative medical devices, such as gene sequencers, AI (artificial intelligence) interventional therapy, surgical robots, and other cutting-edge products. Local players dominate the low-value medical devices, but a growing number of foreign-funded medical device suppliers are localizing and introducing high-end technologies to

expand their China market share.

Also worth noting is the TCM sector, which saw seven M&A deals in the first half of 2022, already equaling those in 2021. The report to the 20th CPC National Congress focuses on the innovative development of TCM, with equal emphasis on traditional Chinese and Western medicine. China issued several TCM policies to enact industry standards, to enhance cross-industry cooperation with TCM products and diagnosis and treatment equipment to integrate new technologies, such as big data, artificial intelligence and wearable devices. As the thriving TCM industry continues to attract capital, leading TCM companies are increasing vertical integration and investment throughout the TCM industrial chain.

Figure 3: Volume/Value of M&A Transactions in the LSHC Industry by Segment



Sources: Mergermarket, Deloitte Research

Segment (billion USD)	2019 H1	2019 H2	2020 H1	2020 H2	2021 H1	2021 H2	2022 H1
API	0.0	0.6	0.1	0.0	0.2	0.2	0.5
Biotech	3.9	4.1	3.3	4.9	5.1	3.5	1.7
Cell and gene therapies	0.1	0.0	0.3	0.5	1.1	0.1	0.0
Chemicals drugs	2.0	1.6	1.3	2.4	1.1	3.4	0.6
CXO	0.4	0.0	0.2	0.9	0.7	0.4	0.8
Health management	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Hospital management	0.1	1.8	0.2	0.2	0.0	1.9	0.5
Digital health	1.4	0.3	0.0	1.7	0.5	0.9	1.5
In vitro diagnostics (IVD)	0.0	0.2	0.4	0.0	0.1	0.5	0.3
Medical devices	0.6	2.5	1.1	1.5	1.8	3.4	1.0
Medical institutions	0.6	2.3	0.5	0.3	1.3	0.8	2.4
Health services	0.0	1.0	0.1	0.2	0.2	0.8	0.0
Distribution & retail	0.1	0.7	1.8	2.2	0.4	1.1	0.6
TCM	1.3	0.1	0.2	0.0	0.1	0.2	1.1
Vaccines	0.1	0.0	0.3	0.7	0.2	1.1	0.0
Others	0.5	0.0	0.0	0.8	0.1	1.7	1.0

Note: The above transaction value excludes 116 deals for undisclosed amounts.
Sources: Mergermarket, Deloitte Research



1.3. Analysis of Cross-Border M&A Transactions in the LSHC Industry

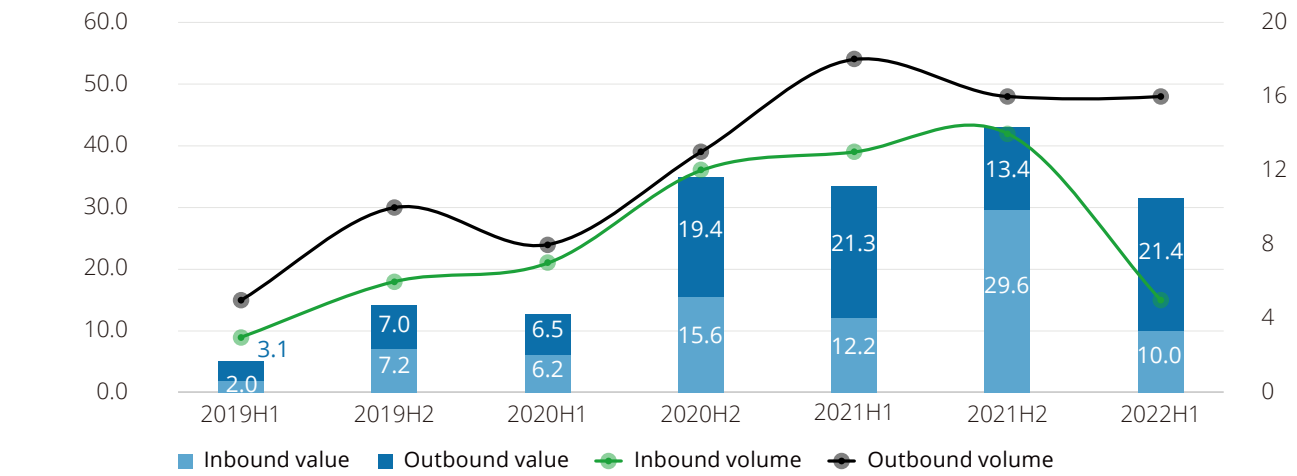
During the first half of 2020, COVID-19 control measures and the trade dispute between China and the United States impacted Chinese outbound M&A activities. Starting in the second half of 2020, cross-border M&A activities increased significantly as the pandemic gradually eased, permitting Chinese investors to participate more in overseas capital markets (Figure 4). There were 61 cross-border M&A deals (excluding deals with undisclosed value and mega-size deals that valued more than USD 1 billion) in 2021, among which 34 were outbound, 13 more than in 2020; 27 were inbound, an increase of 8. In the first half of 2022, Chinese companies remained active in outbound M&A activities, primarily in the biotech segment, while annual inbound deals declined.

The top five outbound M&A deals (excluding deals with undisclosed value) from 2021 to the first half of 2022 include:

1. In August 2021, a consortium led by CBC Group acquired 46.85% of Hugel for USD 1.48 billion. The target company is a well-known Asian manufacturer of anti-aging products with a leading position in South Korea. It was the first time CBC, an investor focused on healthcare, ventured into the aesthetic medicine sector. It is further evidence that the consumer healthcare boom is sweeping the investment community.
2. In May 2021, Mindray acquired 100% percent of the equity of HyTest for USD 660 million. The target company is one of the world's most important vitro diagnostics (IVD) suppliers and one of Mindray's key raw material suppliers. The acquisition is strategically vital for future research and lays a foundation for the globalization of Mindray's IVD business.²
3. In April 2022, Wallaby Medical acquired phenox GmbH for USD 540 million. The target company is a global leader in neurovascular interventions based in Germany. The deal equips Wallaby with a complete and globally competitive portfolio of neurovascular interventional products.³
4. In June 2022, Hong Leong Group Malaysia, the Employees Provident Fund (EPF) of Malaysia, TPG Capital Asia and Columbia Asia Healthcare Sdn. Bhd. acquired IMU Healthcare, the medical education unit of IHH Healthcare, for USD 310 million. The deal is part of IHH Healthcare's drive to streamline and focus its business to boost capital efficiency.⁴
5. In December 2021, Venus Medtech acquired Cardiovalve for less than USD 300 million, a leading company with an innovative transcatheter system intended to replace regurgitating mitral and tricuspid valves. The acquisition will help secure Venus's leading position in structural cardiology globally.⁵

Figure 4: M&A deals in the LSHC Industry by Type

Unit: USD 100 million

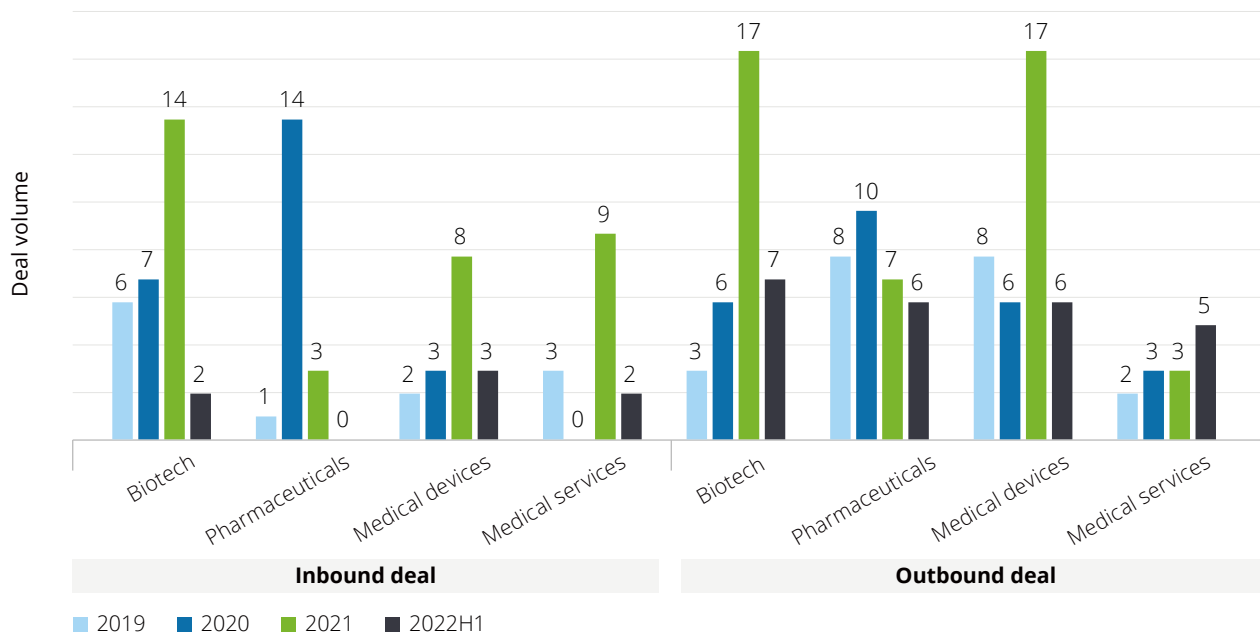


Note: The above deals exclude 116 deals with undisclosed value and 17 deals valued more than USD 1 billion each.
Sources: Mergermarket, Deloitte Research

In 2021, biotech and medical device cross-border transactions saw significant growth. In H2 2022, the cross-border deal for pharma segment has the highest growth with a YoY growth rate of 100%, while biotech segment has the highest decline rate with a negative YoY growth rate of 50%. Both pharma and medical

services industry are showing a positive growth, YoY growth rate of 100% and 400% respectively. On the other hand, biotech and medical devices segments are showing a negative growth with negative YoY growth rate of 22% and 40% respectively.

Figure 5: Volume of Cross-Border M&A Deals by Target's Industry (2019 to the first half of 2022)

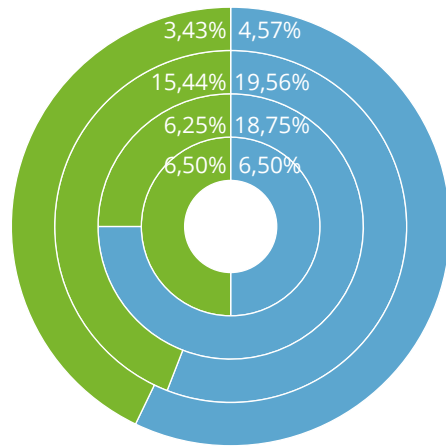


Sources: Mergermarket, Deloitte Research

Private equity and venture capital (PE/VC) firms finance the majority of inbound LSHC deals, and in 2021 increased activity in the Chinese capital market. The number of inbound deals increased significantly from 2020 to 2021, specifically because China was one of the few countries to recover from the pandemic with economic growth (Figure 6). From 2019 to 2021, the volume of inbound deals from US investors continued

to grow, primarily in biotech, medical devices, and medical services, with 9 of the 21 inbound deals coming from the biotech segment. The number of inbound deals by US investors declined in 2022. Outbound deals by Chinese companies saw a surge, driven mainly by growth in the pharmaceutical and medical services segments (Figures 7 & 8).

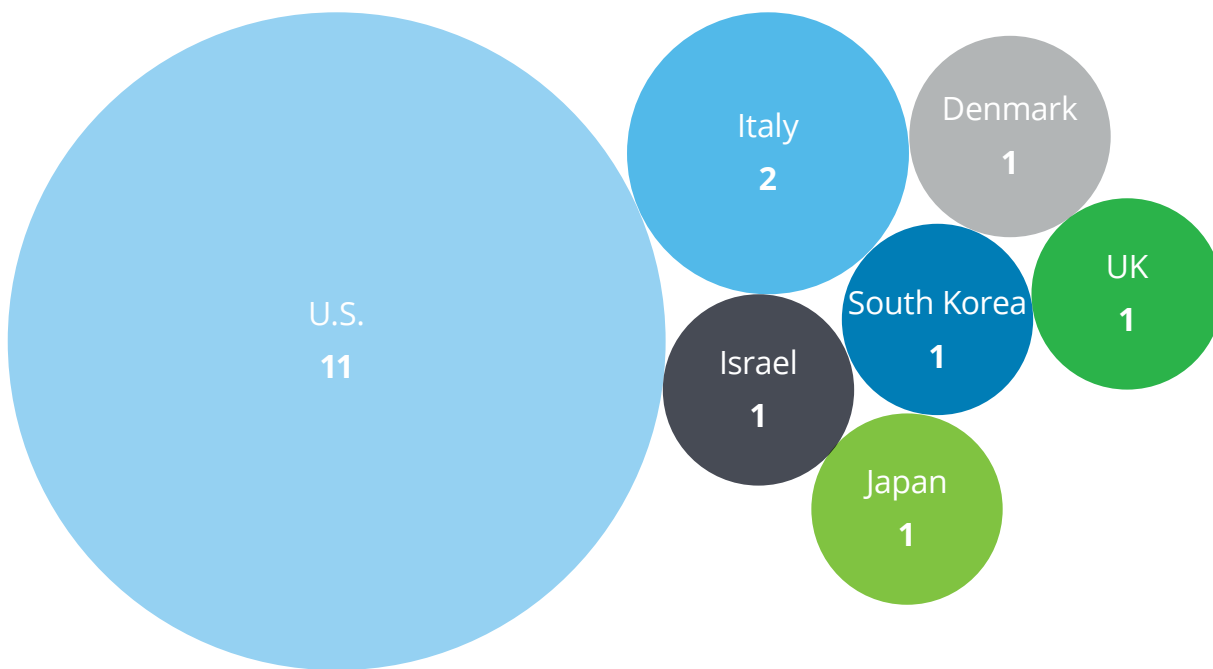
Figure 6: Number and % of Inbound LSHC M&A Deals by Investor Type (2019, 2020, 2021 and H1 2022, from the inside out)



■ Private equity and venture capital ■ Corporate investors

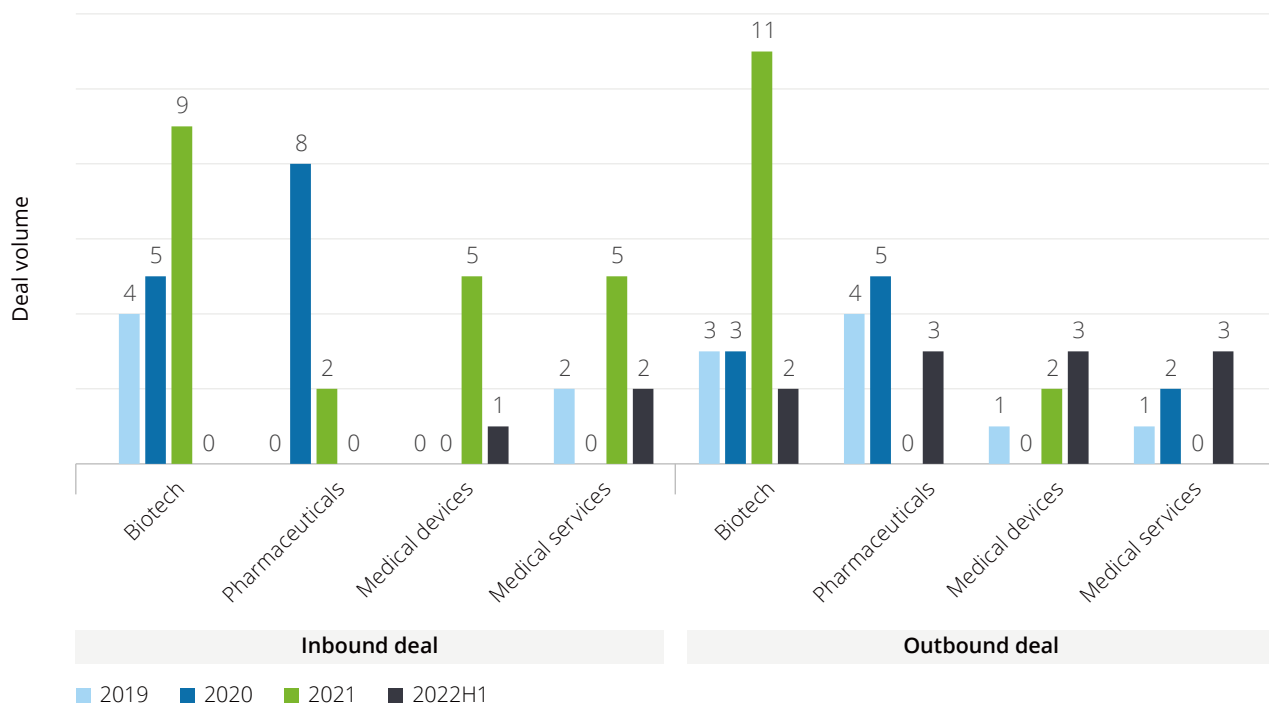
Sources: Mergermarket, Deloitte Research

Figure 7: Number of Corporate Investors by Country (2021 to the first half of 2022)



Sources: Mergermarket, Deloitte Research

Figure 8: Number of Sino-US Cross-Border M&A Deals in the LSHC Industry



Sources: Mergermarket, Deloitte Research

The M&A transactions by the top three U.S. companies in the Chinese market (excluding deals with undisclosed value and purely fundraising deals) from 2021 to the first half of 2022 include:

1. In August 2021, Fosun Pharma announced that it would participate in the going-private acquisition of New Frontier Health (NFH) (operator of United Family Healthcare) utilizing equity replacement, involving shares that amounted to 54.28%. Upon completion of the transaction, the holding company will be beneficially owned by New Frontier Group and its associated investment entities, Vivo Capital, Fosun Pharma, Warburg Pincus and its affiliates, the private equity business of Goldman Sachs Asset Management and certain other investors (the "Buyer Consortium"). The move marks the second time United Family has exited the U.S. stock market and gone private in seven years.⁶
2. In January 2022, Mountain Crest Acquisition Corp. III acquired Chain Factory (Beijing) Technology Co., Ltd. (Etao Cloud) equity for USD 100 million. Etao Cloud is a leading digital medical service provider in online medical care (artificial intelligence, big data, cloud computing, blockchain, etc.) under ETAO International Group.⁷
3. In October 2021, HUYABIO International obtained the exclusive worldwide ex-China rights to the new anti-tumor drug SPH6162 from Shanghai Pharmaceuticals, a large pharmaceutical group listed in Shanghai and Hong Kong, China, for USD 290 million.⁸

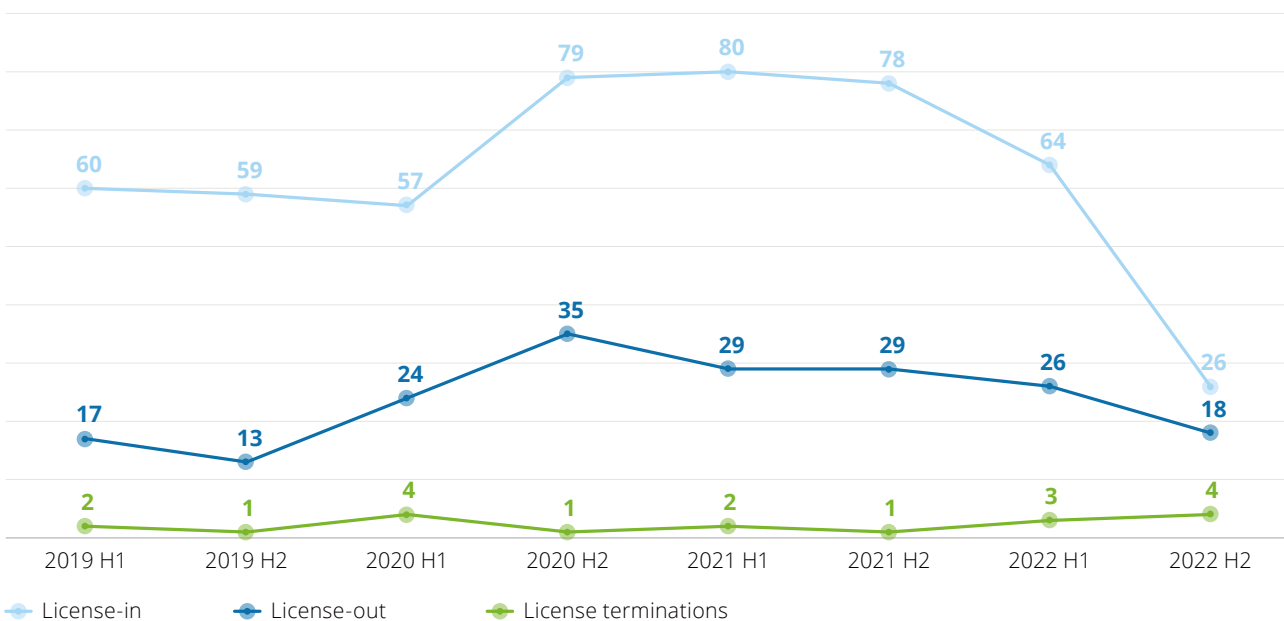
1.4. Changes in Licensing Transactions for LSHC Products

In addition to corporate financing and M&A activities, the capital winter significantly impacted the volume of innovative product licenses. From 2020 to the first half of 2021, the number of inbound and outbound licensing deals maintained steady growth, with total licensing deals increasing 34.6% year on year. But starting in the second half of 2021, the number of new licensing deals fell sharply, and the number of terminations increased. In 2022, the number of deals decreased significantly, and the number of terminations spiked (Figure 9). Lack of access to capital led various pharmaceutical companies to reduce investment in introducing innovative products to stabilize their capital chains, and adjust their R&D focus.

Cases of license termination from the second half of 2021:

- Salubris' exclusive licensing agreement for the oncology drug nanatinostat was terminated.**
 On August 24, 2021, Salubris terminated its exclusive licensing agreement with Viracta Therapeutics for the oncology drug nanatinostat. The product R&D pipeline of Salubris now focuses more on chronic diseases, such as cardiovascular and cerebrovascular diseases, diabetes and orthopedic diseases. With limited progress in the R&D of nanatinostat, both parties sought to terminate their cooperation.
- Lummy Pharmaceutical terminated its cooperation agreement with YZY Biopharma on ophthalmic drug Y400.**
 On July 19, 2022, Lummy Pharmaceutical announced the termination of its strategic cooperation agreement with YZY Biopharma related to the ophthalmic drug Y400 (anti-VEGFA × anti-ANG2BsAb), which planned to enter a new partnership with another pharmaceutical company.

Figure 9: Changes in the Number of Licensing Transactions in China's LSHC Industry (2019-2022)

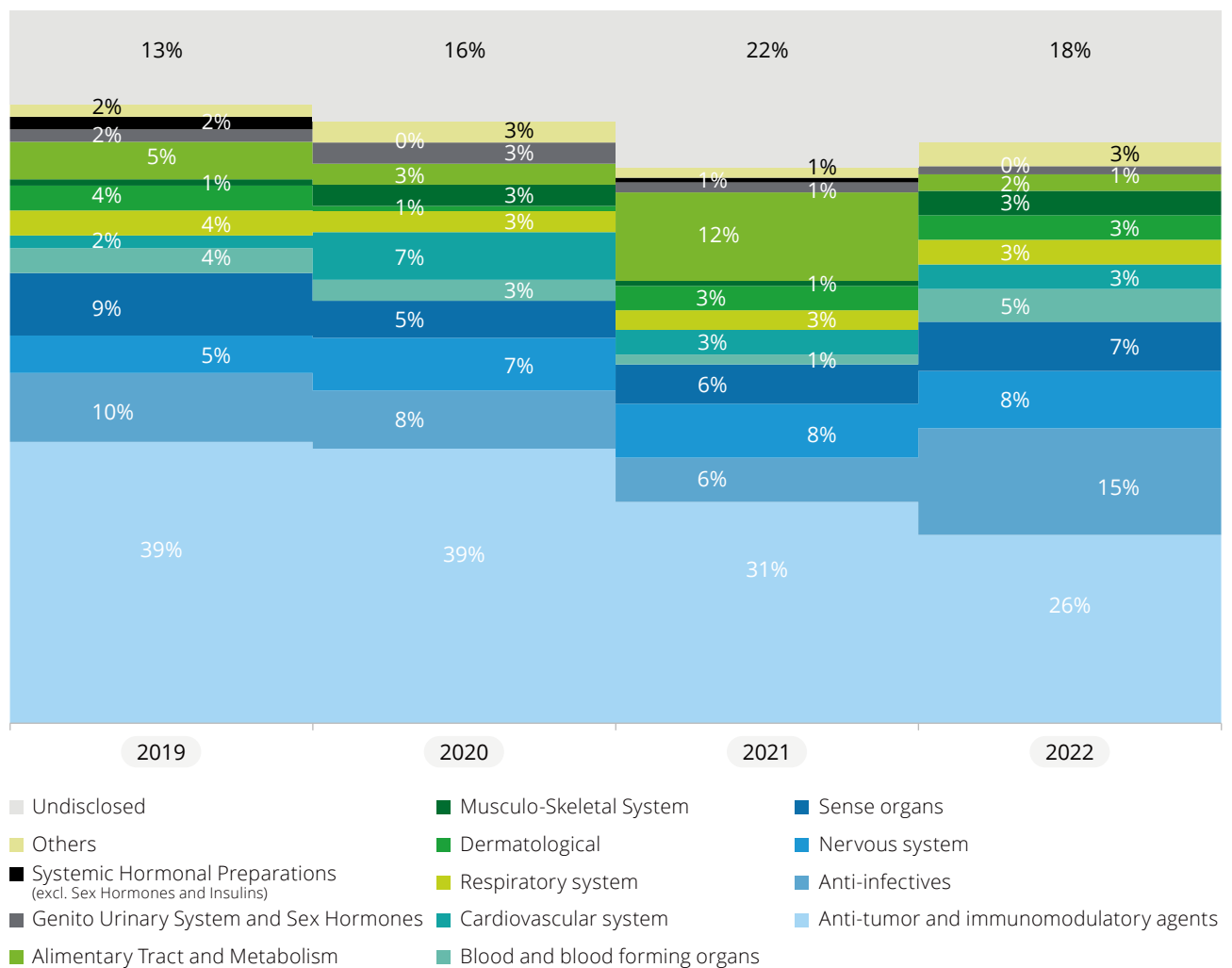


Note: The data collection and access date was on 11 November, 2022
 Sources: GBI, Deloitte Research

From a disease area perspective, cancer and immunologic remain the hot track, with a slight increase in share from 35% in 2021 to 38% in 2022. Notably, the proportion of licensing deals in the anti-infection area increased, dominated by COVID-19-related vaccines and therapeutic drugs, as well as

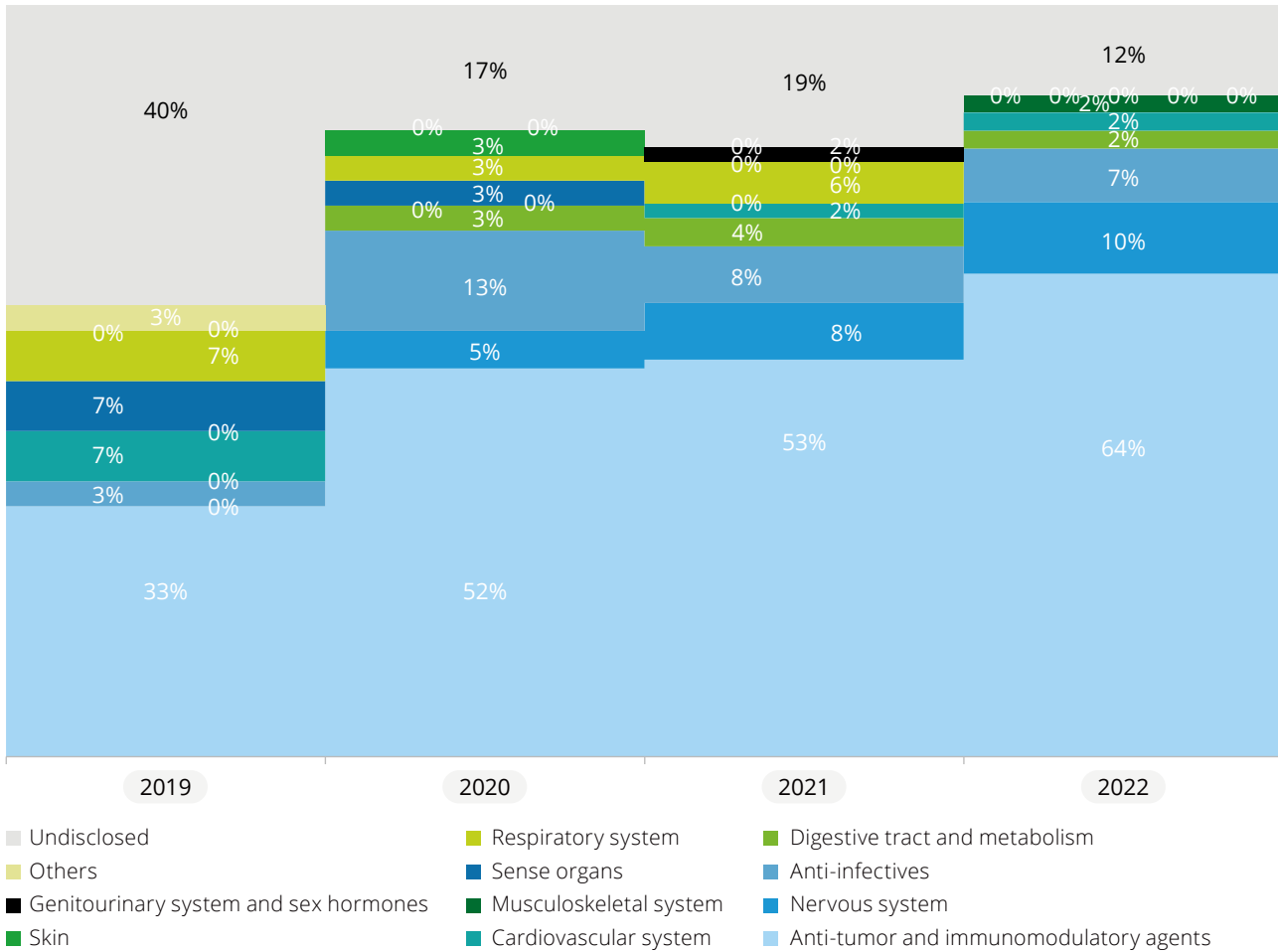
innovative vaccines (such as polyvalent pneumonia, viral and other out-of-pocket vaccines), highlighting the growing demand for preventive medicines driven by the heightened awareness of self-health management among Chinese consumers (Figures 10 & 11).

Figure 10: License-in Deals from 2019 to 2022 by Therapeutic Area



Note: The data collection and access date was on 11 November, 2022
Sources: GBI, Deloitte Research

Figure 11: License-out deals from 2019 to 2022 by Disease Area



Note: The data collection and access date was on 11 November, 2022
 Sources: GBI, Deloitte Research

Currently, there are 15 PD-1/L1 products on the Chinese market. 11 domestic products and 4 foreign products, additionally another four are under NDA review. (Table 1) In addition, the choice has focused on similar cancer types, such as non-small cell lung

cancer (NSCLC) and Hodgkin lymphoma (HL), leading to the predicament of having multiple innovative drugs available for some conditions and while available options for others.

Domestic innovative drugs also encounter difficulties going abroad, as the U.S. Food and Drug Administration (FDA) has become more cautious in the review of homogeneous innovative drugs. In March 2022, the FDA rejected an application for Sintilimab as a first-line treatment for non-squamous non-small cell lung cancer (NSCLC) due to concerns about the quality of clinical trial data and population diversity.⁹ In July 2022, Junshi Biosciences resubmitted its Biologics License Application (BLA) for Toripalimab, which was accepted by the FDA, following an application for a rolling review submitted in March 2021 which was thwarted as a COVID-19 outbreak in China prevented on-site inspections from happening.¹⁰ BeiGene's BLA application for its Tislelizumab was also delayed by the FDA due to restrictions on on-site inspections in the country due to COVID-19 control measures.¹¹ China's homogeneous innovative drugs continue to face greater difficulties in overseas markets as the FDA's stricter approach to evaluating and approving "me-too" drugs has resulted in a significantly narrower window of opportunity.

In this regard, the NMPA issued the Guiding Principles for Clinical Research and Development of Anti-Tumor Drugs Oriented Towards Clinical Value on November

19, 2021, emphasizing that drug R&D should be patient-centered and guided by clinical value. It was formally proposed that new drugs should provide better treatment while control drugs should represent the best available treatment option.

The following year, in November 2022, the Center for Drug Evaluation (CDE) of the NMPA published the Technical Guidelines for the Benefit-Risk Assessment of New Drugs (the Guidelines). The draft provided detailed guidelines for measuring the benefits and risks of an innovative drug, defining the distinctions between me-too, me-better and me-worse drugs, and standardizing the application procedures. Clearer standards for innovative drugs will give impetus to pharmaceutical companies capable of original innovation. In addition, the Guidelines specified the need to ensure that there are no unacceptable benefits or risks compared to approved alternative therapies or that the new drug is more effective than existing options. The higher threshold for approval will take the heat off several highly profitable therapies that are sought after by companies and guide the industry towards differentiated R&D, improving the quality of Chinese pharmaceutical innovation.



Table 1: Domestic PD-1/L1 Products and Indications Approved for Market as of November 2022

Product	Product name	Manufacturer (s)	Target	Date of first approval	Indication	Line of therapy	Concomitant medications
Pucotenlimab	Puyouheng	Lepu Biopharma	PD-1	19/07/2022	Colorectal cancer (CRC)	Second-line	/
				20/09/2022	Melanoma	Third-line	/
Cadonilimab	Kaitanni	Akeso, Inc.	PD-1/ CTLA4	28/06/2022	Cervical cancer	Second and third-line	/
Serplulimab	Hansizhuang	Henlius	PD-1	22/03/2022	MSI-H/dMMR tumor	/	/
				25/10/2022	Squamous NSCLC	First-line	/
Sugemalimab	Cejemly	CStone	PD-L1	20/12/2021	Non-squamous NSCLC	First-line	Pemetrexed and Carboplatin
				31/05/2022	NSCLC	Consolidation therapy	/
Envafolimab	Enweida	Alphamab Oncology/3D Med	PD-L1	24/11/2021	MSI-H/dMMR tumor	/	/
Zimberelimab	Yutuo	Gloria Biosciences	PD-1	25/08/2021	Classical Hodgkin lymphoma (CHL)	Second-line	/
Penpulimab	Anniko	Akeso, Inc.	PD-1	03/08/2021	CHL	Second-line	/
				26/12/2019	CHL	Third-line	/
				11/04/2021	Urothelial carcinoma (UC)	Second-line	/
				14/01/2021	Squamous NSCLC	First-line	Paclitaxel and Carboplatin
				22/06/2021	Non-squamous NSCLC	First-line	Chemotherapy
				22/06/2021	Hepatocellular carcinoma (HCC)	Second-line	/
Tislelizumab	Baizean	BeiGene	PD-1	31/12/2021	Metastatic NSCLC	Second and third-line	/
				08/03/2022	MSI-H/dMMR tumor	/	/
				08/04/2022	Esophageal squamous cell carcinoma (ESCC)	Second-line	/
				07/06/2022	Nasopharyngeal carcinoma (NPC)	First-line	Chemotherapy
				29/05/2019	CHL	Third-line	/
				18/03/2020	HCC	Second-line	/
Camrelizumab	AiRuiKa	Hengrui Medicine	PD-1	27/04/2021	NPC	Second-line	/
				10/06/2021	NPC	First-line	Gemcitabine and Cisplatin
				19/06/2021	ESCC	Second-line	/
				19/06/2021	Non-squamous NSCLC	First-line	Pemetrexed and Carboplatin
				10/12/2021	ESCC	First-line	Paclitaxel and Cisplatin
				10/12/2021	Squamous NSCLC	First-line	Paclitaxel and Carboplatin
Sintilimab	Daboshu	Innovent	PD-1	24/12/2018	CHL	Third-line	/
				07/02/2021	Non-squamous NSCLC	First-line	Paclitaxel plus platinum-based chemotherapy
				03/06/2021	Non-squamous NSCLC	First-line	Gemcitabine plus platinum-based chemotherapy
				25/06/2021	HCC	First-line	Bevacizumab
Toripalimab	Tuoyi	Junshi Biosciences	PD-1	16/06/2022	ESCC	First-line	Paclitaxel and Cisplatin
				24/06/2022	Gastric cancer	First-line	Chemotherapy
				17/12/2018	Melanoma	Second-line	/
				07/04/2020	UC	Second-line	/
Toripalimab	Tuoyi	Junshi Biosciences	PD-1	10/02/2021	NPC	Second-line	/
				26/11/2021	NPC	First-line	Gemcitabine and Cisplatin
				13/05/2022	ESCC	First-line	Paclitaxel and Cisplatin
				19/09/2022	Non-squamous NSCLC	First-line	Chemotherapy

Note: Accessed on 11 November, 2022
Sources: GBI, Deloitte Research

2 Review of the Primary Market in the Life Sciences and Health Care Industry¹²

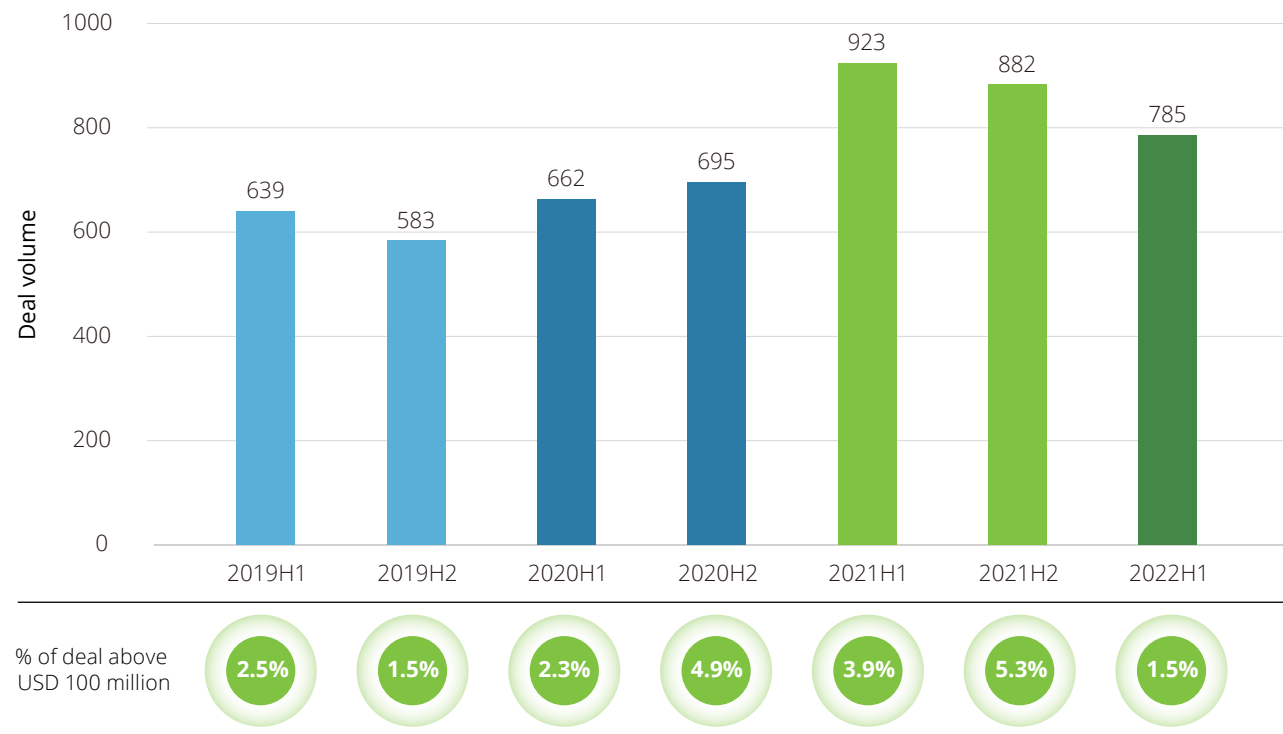
A person wearing a white lab coat is looking through a microscope in a laboratory setting. The background is a blurred laboratory environment with various pieces of equipment. The entire image has a blue tint.

2.1. Review of the Primary Market in China's LSHC Industry (2021 to the first half of 2022)

Throughout 2021 there was an impressive amount of investment in China's LSHC industry (Figure 12). The year-round deal volume reached 1,805 (including mega-deals valued over USD 1 billion), representing an increase of 33% year-on-year. Among them, the total disclosed deal value reached USD 31.5 billion. The total figure of disclosed transactions, exclusive of mega-deals valued over USD 1 billion, amounted to USD 27.2 billion, up 62.9% over the previous year. From the second half of 2020 to 2021, several large-scale financing deals drove up the average (Figure 13). In 2021, there were altogether 81 deals exceeding USD 100 million, more than half of which were in the pharmaceutical industry.

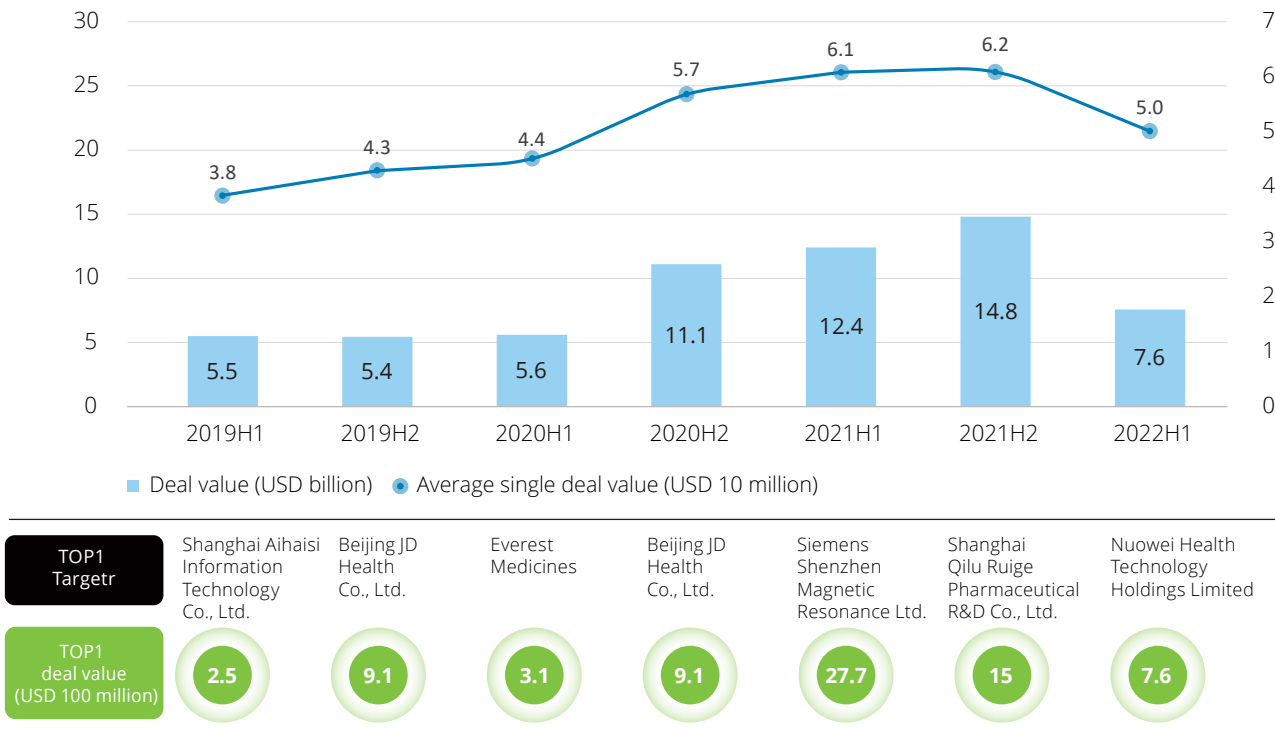
Although declining in number, the volume of fundraising deals in the first half of 2022 was the second-highest since 2019. During this period, there were 785 fundraising deals (including mega-deals valued over USD1 billion), a year-on-year decrease of 137. The total value of value-disclosed deal was approximately USD 7.6 billion, declining by roughly 50.7% from the peak in the corresponding period. Meanwhile, enthusiasm decreased in LSHC IPOs. The secondary market performed poorly, the A-share SSE Health Care Index and SZSE Biological Medicine 50 Index and the HS HK-listed Biotech Index trended downward (Appendix 2), and the valuation of enterprises fell. The value of single deal slipped. There were 12 deals exceeding USD 100 million, down 23 year-on-year.

Figure 12: Investment and Financing Transaction Volume in the LSHC Industry (2019 - 2022 H1)



Sources: CVSource, Deloitte Research

Figure 13: Fundraising Deals Value in the LSHC Industry (2019 – H1 2020, excluding mega-deals)



Note: The figure above excludes 3,982 deals with undisclosed value and 2 deals valued more than \$1 billion each.
Sources: CVSource, Deloitte Research

Deals valued over USD 1 billion from 2019 to the first half of 2022 (excluding deals with undisclosed amounts) include:

- In March 2021, Siemens Shenzhen Magnetic Resonance (SSMR) received a strategic investment of EUR 2.34 billion from Qatar Investment Authority (QIA). As a medical imaging diagnosis service provider, SSMR is committed to serving users with one-shop-stop and treatment services ranging from prevention, early detection, and diagnosis to treatment and post-care.
- In December 2021, Shanghai Qilu Ruige Pharmaceutical ("Qilu Ruige") was strategically financed by Eli Lilly and Company (Lilly) from the United States, winning an investment of over USD 1.5 billion. Qilu Ruige is a developer of innovative drugs for tumors and immune metabolism. With this investment, Lilly's expanded capabilities will enable

more treatment solutions for patients with metabolic diseases worldwide.

Analysis of the LSHC industry by segment

From 2021 to the first half of 2022, the distribution of fundraising events remained stable (Figure 14), among which pharmaceutical and medical devices segments saw heavy trading. In 2021, the volume of fundraising deals in these two segments reached 1,333, accounting for about 73.9% of the total deals. Among them, the annual deal volume of the pharmaceutical segment was 633, while that of the medical device segment was 700, an increase of 41.1% from the 945 deals in 2020. From 2021 to the first half of 2022, the proportion of fundraising deals in the digital health and medical service segments to the total overall deals dropped slightly. In addition, the proportion of fundraising deals in the distribution & retail segments remained flat compared with 2019 and 2020.

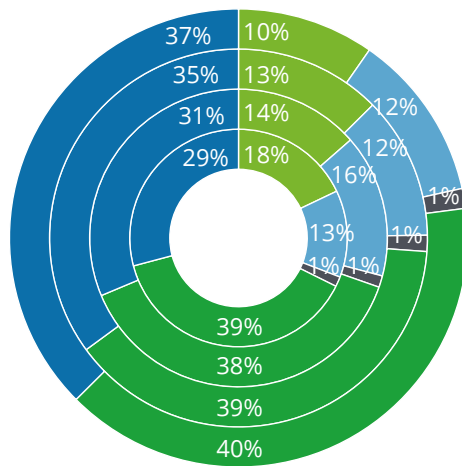
Typical pharmaceutical deals from 2021 to the first half of 2022 include: Strategic investment from Lilly (US) into Qilu Ruige; series C funding for ABOGEN from Wuyuan Capital and Temasek; strategic investment from 1GLOBE BIOMEDICAL into SINOBIOWAY; Series C funding from SoftBank and Hillhouse to Nature's Fynd; Tessera Therapeutics' series C funding by SoftBank and CDH.

QIA; series A+ funding of OrbusNeich participated by Red Earth Ventures and SCGC; series C funding for EDGE MEDICAL by SEQUOIA and BOYU CAPITAL; JENSCARE's Series C funding by Janecox Investment IV and Duckling Fund; and Wego Intervention's series A funding from Xinjin Capital and China Renaissance.

For the analysis of pharmaceutical and medical devices segments, please refer to Chapter 2.8.

Typical medical device deals from 2021 to the first half of 2022 include: series A investment for Siemens from

Figure 14: Analysis of Fundraising Deals Volume by Segment in the LSHC Industry (2019, 2020, 2021 and H1 2022, from the inside out)



■ Digital health ■ Medical service ■ Distribution & retail
■ Medical device ■ Pharma

Sources: CVSsource, Deloitte Research

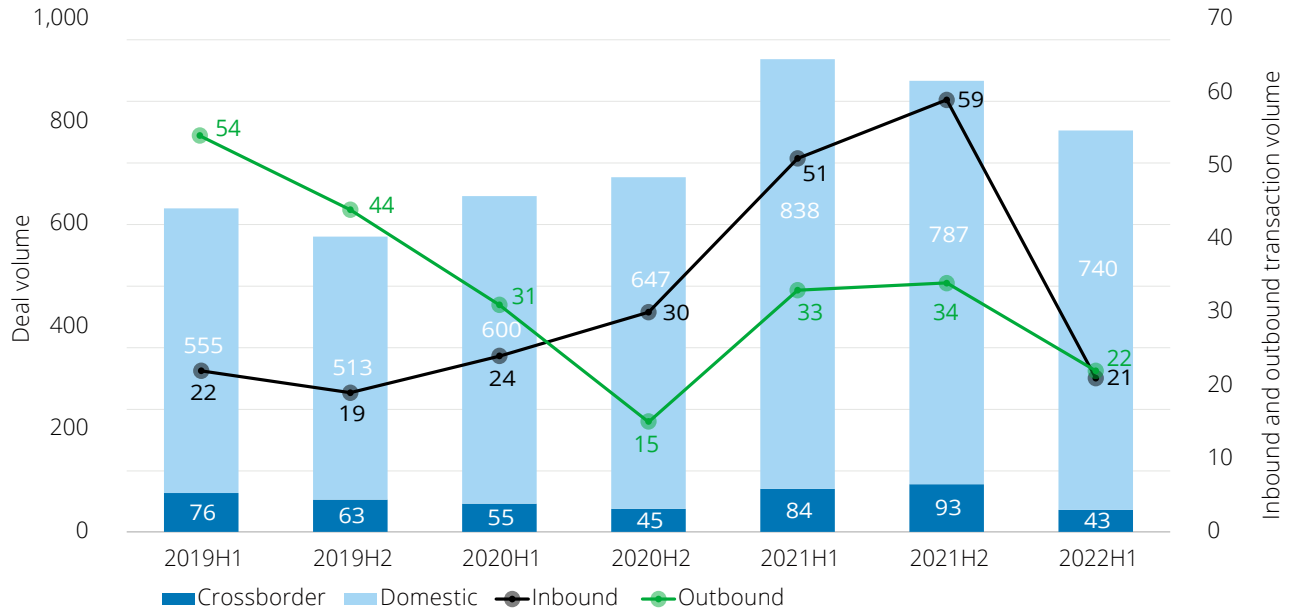
Domestic and cross-border (inbound and outbound) deals

In response to the economic impact of pandemic, various countries introduced monetary and fiscal policies, which boosted PE/VC capital confidence. Compared with 2020, cross-border deals trended positively. There were 177 cross-border deals, an increase of 77 (Figure 15). Excluding deals value over USD 1 billion, the disclosed deal value reached USD 1.17 billion (Figure 16). In the latter part of 2020 and following the effective control of the epidemic, China entered the post-epidemic era. In response, the

domestic economy quickly moved past the gloom, and the enthusiasm for cross-border deals gained traction. At the same time, overseas investors began to cast a bigger spotlight on China's capital market.

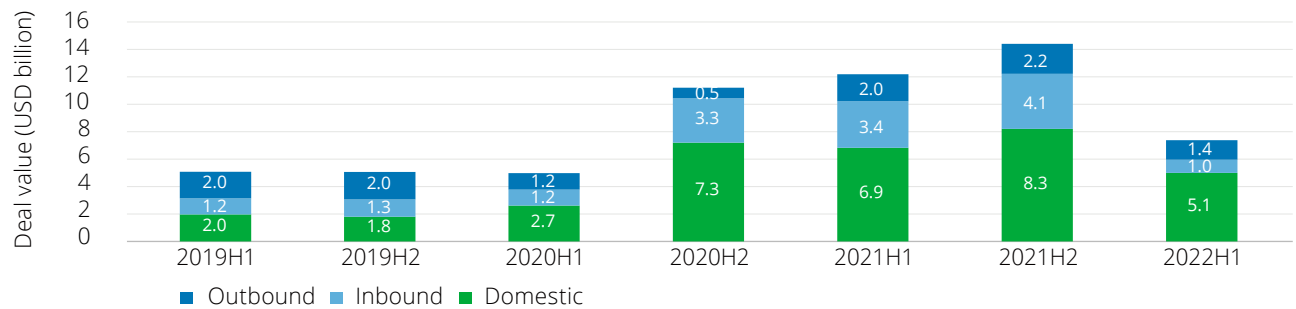
In the first half of 2022, as a joint result of increasingly tense geopolitics, the re-emergence of the epidemic, and declining consumer confidence, the market's appetite for investment and financing shrank, with both domestic and cross-border deals falling year-on-year.

Figure 15: Analysis of Fundraising Deal Volume in the LSHC Industry by Type



Sources: CVSource, Deloitte Research

Figure 16: Analysis of Fundraising Deal Value in the LSHC Industry by Type



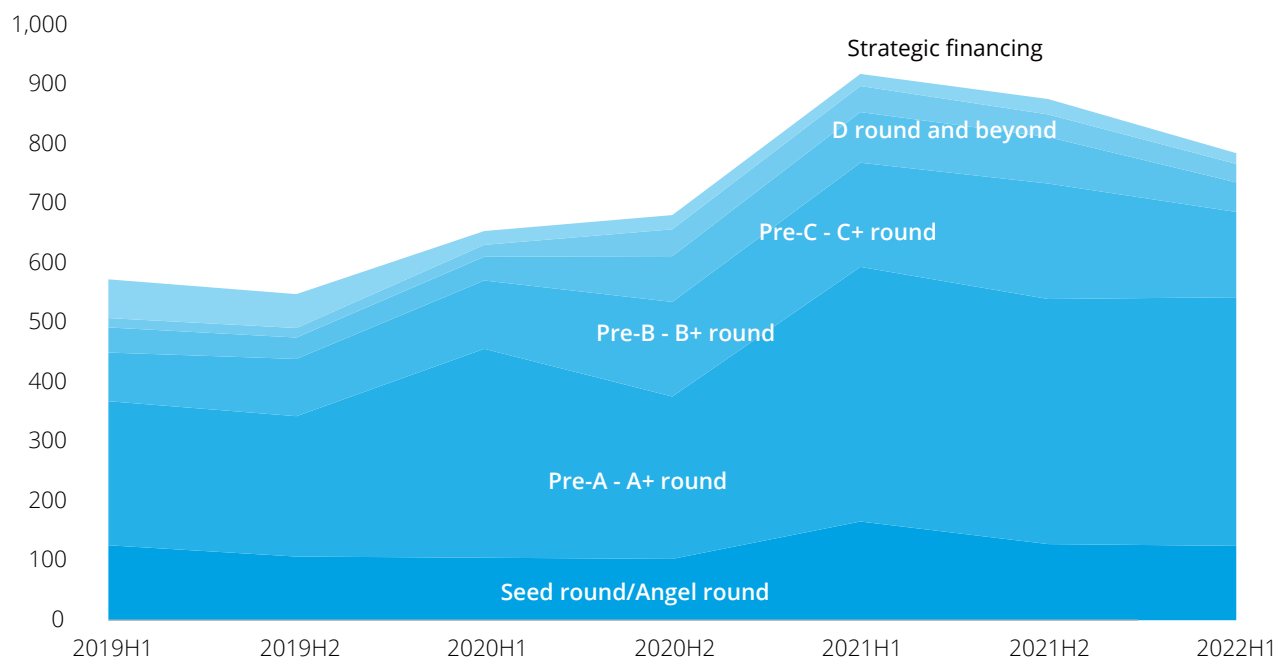
Note: The figure above excludes 3,982 deals with undisclosed value and 2 deals valued more than USD 1 billion.
Sources: CVSource, Deloitte Research

Early-stage fundraising favored by investors

Early-stage (seed to A) rounds accounted for 70% of total financing. Since 2021, transactions in mid-to-late-

stage projects have gradually decreased. Investors are pessimistic about the industry, and are more inclined to invest in more affordable A-rounds. (Figure 17)

Figure 17: Analysis of Fundraising Deal Volume by round



	H1 2019	2019H2	2020H1	2020H2	2021H1	2021H2	2022H1
Seed round/Angel round	22%	20%	16%	15%	18%	15%	16%
Pre-A - A+ round	42%	41%	54%	40%	47%	47%	53%
Pre-B - B+ round	14%	19%	18%	23%	19%	22%	18%
Pre-C - C+ round	7%	6%	6%	11%	9%	9%	6%
D round and beyond	3%	3%	3%	7%	5%	4%	4%
Strategic financing	11%	11%	4%	4%	2%	3%	2%

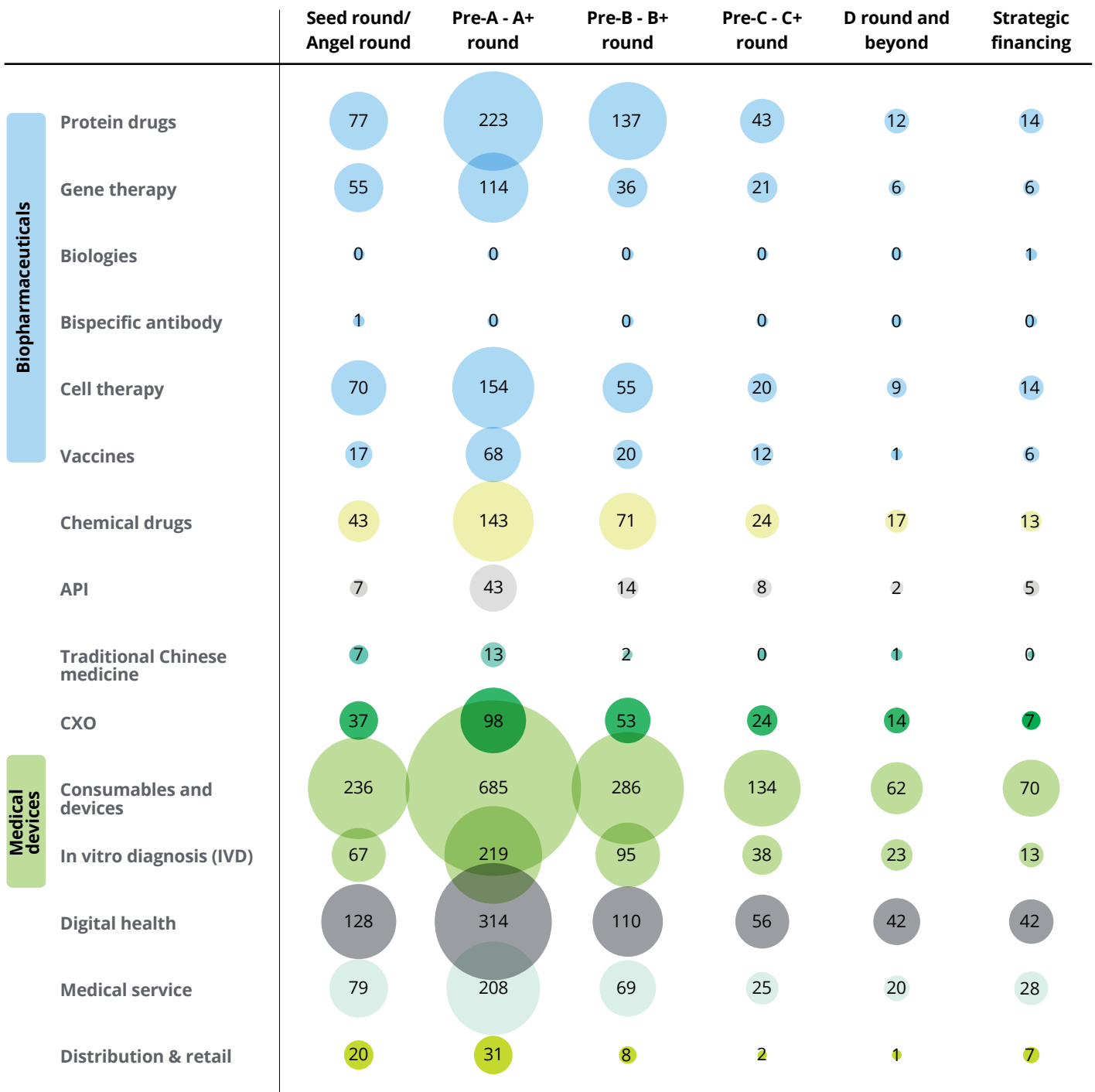
Note: Excludes 134 deals whose rounds are not yet disclosed.
Sources: CVSource, Deloitte Research

2.2. Segment analysis

There were more 2,500 fundraising deals from 2021 to H1 2022. Biopharmaceuticals and medical device were the top segments, followed by digital health, which has risen to become a hot investment field in recent years (Figure 18). Compared with the same period of 2021,

the deal volume in all the various fields in 2022 dipped by varying degrees. Unlike the slight setbacks faced by biopharmaceuticals and medical device providers, due in large part to their favor in capital markets, digital health underwent a particularly sharp decline. (Figure 19)

Figure 18: Fundraising deal volume in the main LSHC segments (2021-H1 2022)



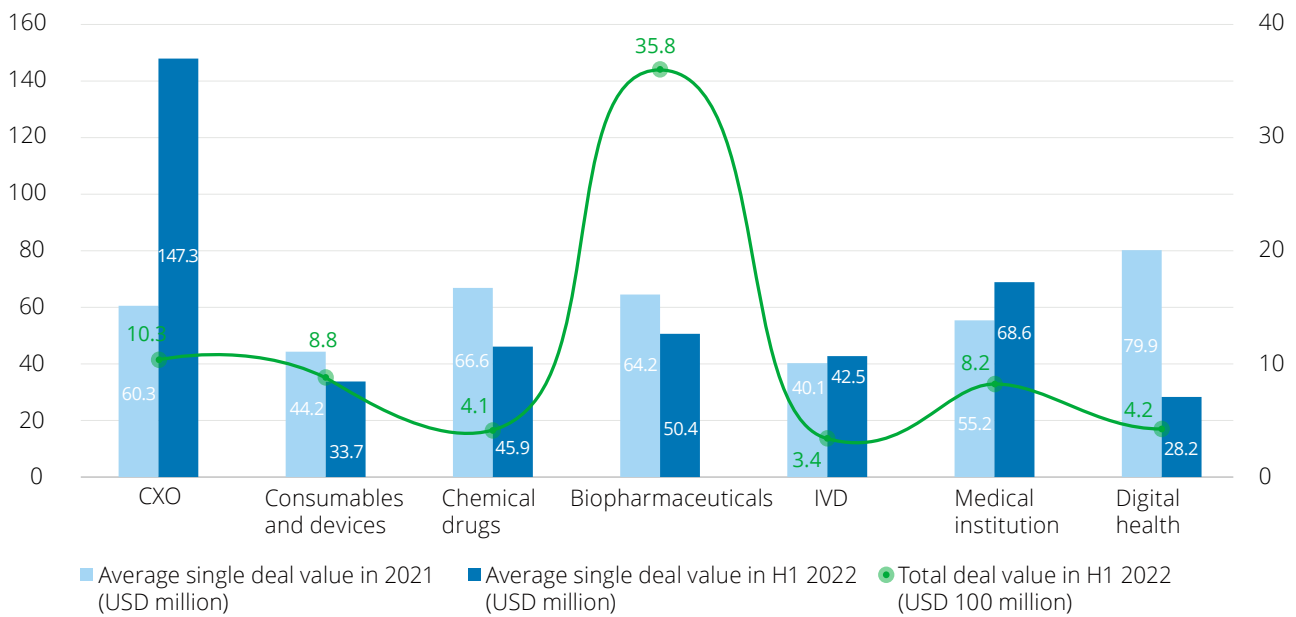
Sources: CVSource, Deloitte Research

Although the capital market has cooled, the average single deal value in some segments remains impressive, with highly valued projects attracted the bunch of investors. This was particularly true for CXO (including CRO, CMO, and CDMO) and medical institutions. The largest investments included Novotech Health, a professional contract research organization (CRO) platform for biotechnology that obtained USD 760 million in Series A financing;

and Hong Kong Asia Medical Holding Limited, a cardiovascular hospital that received USD 400 million in its D round.

On the other hand, average single deal value in digital health, chemical drugs, and biopharmaceuticals dropped sharply year-on-year by about 65%, 31%, and 21% respectively.

Figure 19: Investment and financing transaction value in the main LSHC segments



Note: Excludes 3,982 deals for undisclosed value and 2 deals valued more than USD 1 billion each.
Sources: CVSource, Deloitte Research

- Strong growth in the CXO market was driven by demand for R&D, production of next-generation drugs, and the provision of more cost-efficient services. Statistics from the Ministry of Commerce indicate that China's total number of pharmaceutical and biotechnology offshore outsourcing contracts grew in 2020 and 2021, reaching 25.0% and 24.7% respectively. These figures highlight a stable positive trajectory, catalyzed by the global trend of CXO order transfer and the ongoing impact of the pandemic.
- In the medical institutions sector, supply-demand imbalance has further channeled social capital into private general hospitals, resulting in scaled-up capital deployment in second- and third-tier cities. Furthermore, demand for specialized hospitals and clinics for aesthetic medical, dental treatment, assisted reproduction, and pediatrics have also seen rapid growth driven by synergies arising from standardized operating models, high service replicability, and regional expansion.
- In digital health, the gap between investment volume and actual financing value was primarily due to 15 large fundraising deals in 2021, of which two exceeded USD1 billion: the USD3 billion in Series E pooled by miaoshou.net, a doctor-patient relationship and medication management platform; and USD2 billion in round C financing for Meditrust Health, a medical payment information services provider. Interconnection-related internet platform players had a clear role in investment and financing events in digital health from 2021 to H1 2022. Internet platforms for disease and health management were particularly prevalent, indicating the growing influence of self-health management awareness in digital health investment.
- The chemical drugs segment is now slumping after frequent national and provincial-level volume-based procurements (VBP) with explicit quantities. A sharp drop in the traditional chemical drug market, uncertainties in market outlook, and the bottleneck created by traditional chemical drug companies in the pursuit of innovative transformation, which in turn led the capital market to adopt a conservative attitude towards funding chemical drug companies.
- The biopharma segment began to cool in the later part of 2021, and the valuation of innovative biotech companies fell in response, hindering related fundraising events in this area in 2022. The number of fundraising events in the first half of 2022 dropped by 18.4% year-on-year. Investment institutions in this segment therefore focused more on "original innovation" projects, such as cell and gene therapy (CGT) among next-generation therapies. Fundraising deals in CGT increased by 14.3% and 6.7% in 2022 respectively, making CGT one of the few segments of biopharma realizing growth in 2022.

2.3. Analysis of domestic investment and financing transactions

The capital-absorbing capabilities of China's LSHC industry clusters

The LSHC industry in the Yangtze River Delta accounted for about 55.4% of total fundraising deal volume. Shanghai absorbed the most capital, followed

by Jiangsu and Guangdong provinces (Table 2). The construction of regional industry clusters can foster more financing possibilities for LSHC players. Cities or provinces in the Yangtze River Delta (YRD), Beijing-Tianjin-Hebei (BTH), and the Greater Bay Area (GBA) hold a strong lead in deal volume and value, occupying the top five positions in the list.

Table 2: Domestic fundraising deal value and volume by region from 2021 to 1H 2022

City/province	Total deal volume	Total deal value (USD 100 million)
Shanghai	96	43.6
Jiangsu	88	37.4
Beijing	72	29.2
Guangdong	66	29.8
Zhejiang	51	29.6
Sichuan	13	3.6
Hubei	11	6.3
Shandong	5	3.3
Shanxi	3	0.8
Tianjin	3	0.7
Hong Kong	3	8.3
Anhui	2	0.2
Fujian	2	4.7
Hebei	2	1.3
Others	11	4.1

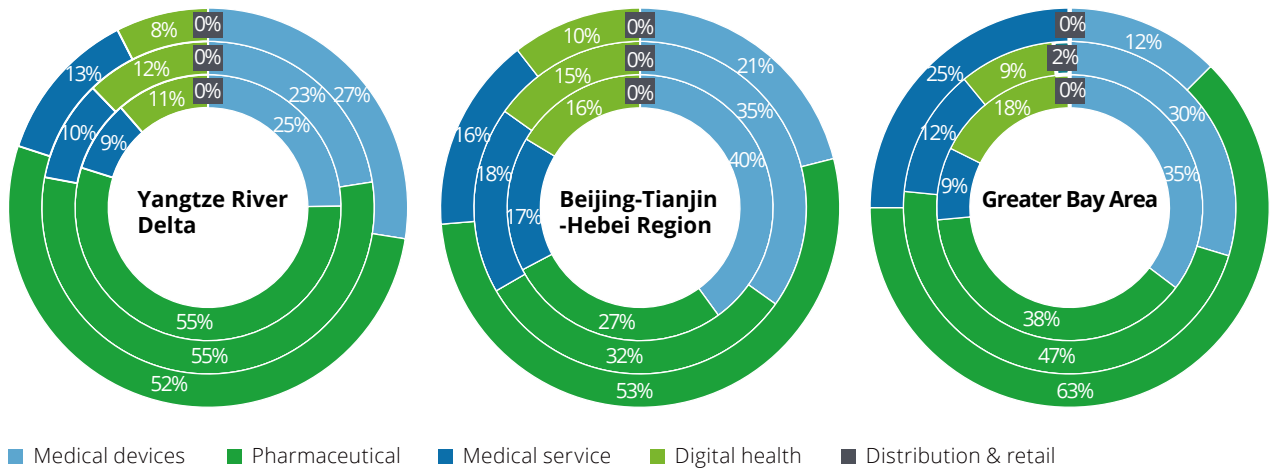
Note: Excludes 1,937 deals whose values are not disclosed.

Sources: CVSource, Deloitte Research

Fundraising deals in the YRD, BBTH, and GBA varied by segment (Figure 20):

- The YRD region was dominated by the LSHC (drug and medical devices) industry, with its proportion of deals rising to 80% in the first half of 2022, driven by the cluster effect of the region's rich industrial chain.
- The proportion of pharma-related deals in the BTH region has surged in the past three years, from 19% in 2020 to 32% in the first half of 2022. In addition, this region saw the highest proportion of digital health deals, showing the importance attached by the BTH region to the application of digital technology across different fields.
- The proportion of deals in the GBA has been flat, and the volume of deals in the medical services segment has risen slightly.

Figure 20: Fundraising deal volume by region (inner circle: 2020; middle circle: 2021; outer circle: H1 2022)



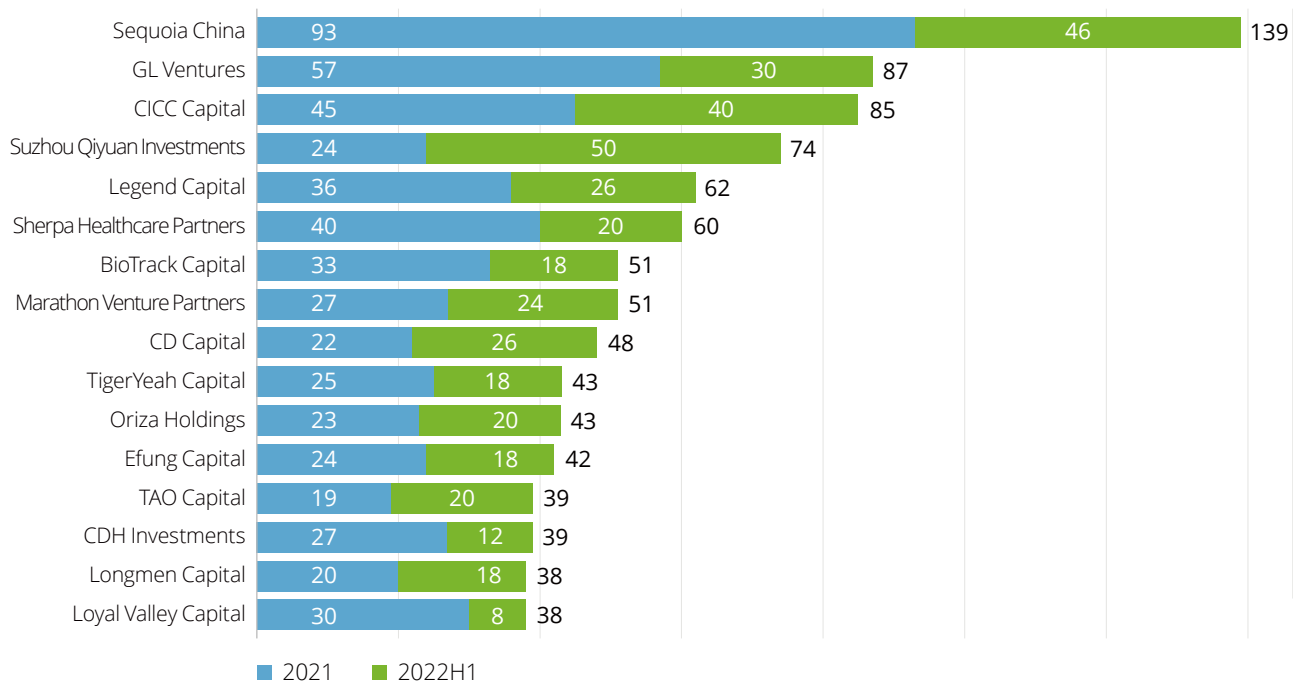
Note: Excludes 2,594 deals for undisclosed value.
Sources: CVSource, Deloitte Research

Leading venture capital funds became active

In 2021, star venture capital funds including Sequoia China, GL Ventures, and CICC Capital became active investors in domestic deals, dominating the market with more than 80 deals each, which manifested the confidence of private capital in the outlook for the

LSHC industry that year. However, in the first half of 2022, the deal volume of this top three VCs declined year-on-year, with Sequoia China's investment falling most sharply, due to declining domestic investment valuations and the impact of epidemic prevention and control measures (Figure 21).

Figure 21: Top 15 most active VC investors (2021-H1 2022)



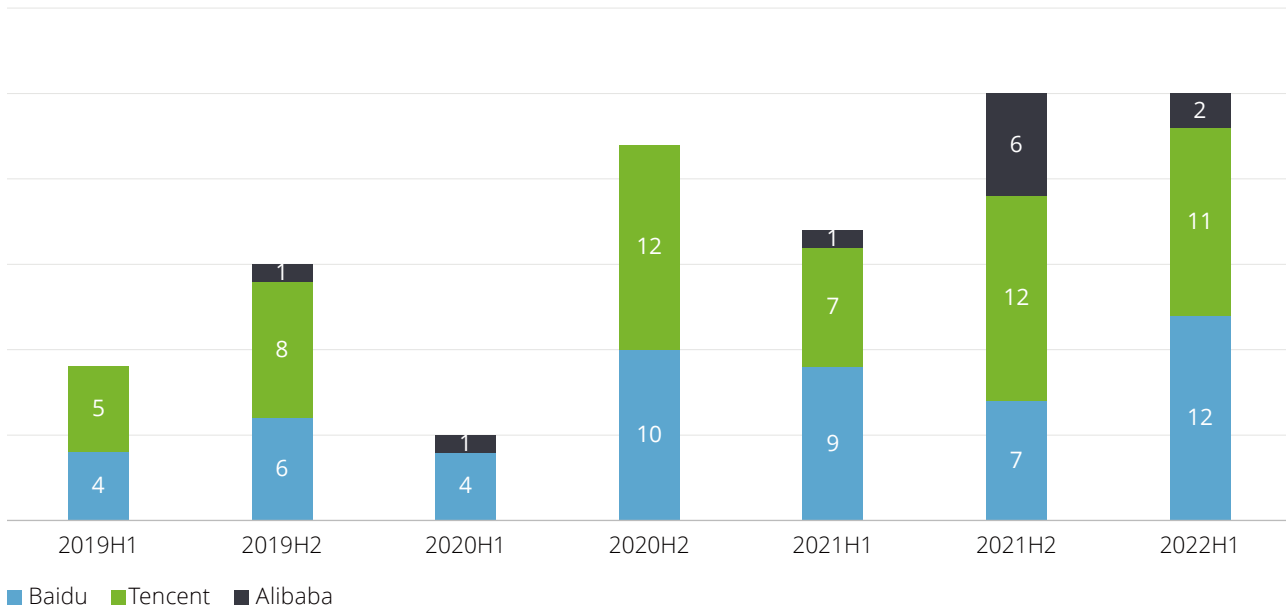
Sources: CVSource, Deloitte Research

2.4. Technology companies' cross-industry investment

Following the start of the COVID-19 outbreak, the development of digital health entered the fast lane.

In 2020, technology giants invested heavily in this industry, with their activity ultimately reaching a new post-2019 high from 2021 to the first half of 2022 (Figure 22).

Figure 22: Fundraising deals involving the tech giants (2019-H1 2022)



Sources: CVSource, Mergermarket, Deloitte Research

The top five cross-industry fundraising deals by technology giants from late 2019 to the first half of 2022 were:

1. October 2019, Alibaba Group, Ant Financial, and YF Fund acquired more than RMB 7.2 billion in shares of medical examination and services provider Health-100. Alibaba and its related parties became the second largest shareholder of Health-100 with a 10.82% stake.
2. February 2021, medical technology company Yuanxin Technology raised RMB 3 billion in its E round led by Sequoia China and Tencent, with other investors including CITIC Securities, CICC Capital, OrbiMed, Qiming Venture Partners, Kunling Capital, and Gopher Asset Management.
3. December 2020, Medbanks completed an E-round financing of nearly RMB 2 billion, with the financing led by Tencent and Jeneration Capital and with 5Y Capital, Forebright Capital, and WU Capital also investing.
4. December 2020, online consultation and medical information service platform Guanlan Network, an affiliated company of Dingxiangyuan, completed strategic financing of USD 500 million. Trustbridge was the lead investor, with other investors including Tencent and GL Ventures.
5. August 2021, AI drug R&D company XtalPi raised USD400 million in its D round, led by OrbiMed and others, with Tencent Investment, Sino Biopharm, and Hopu also investing.

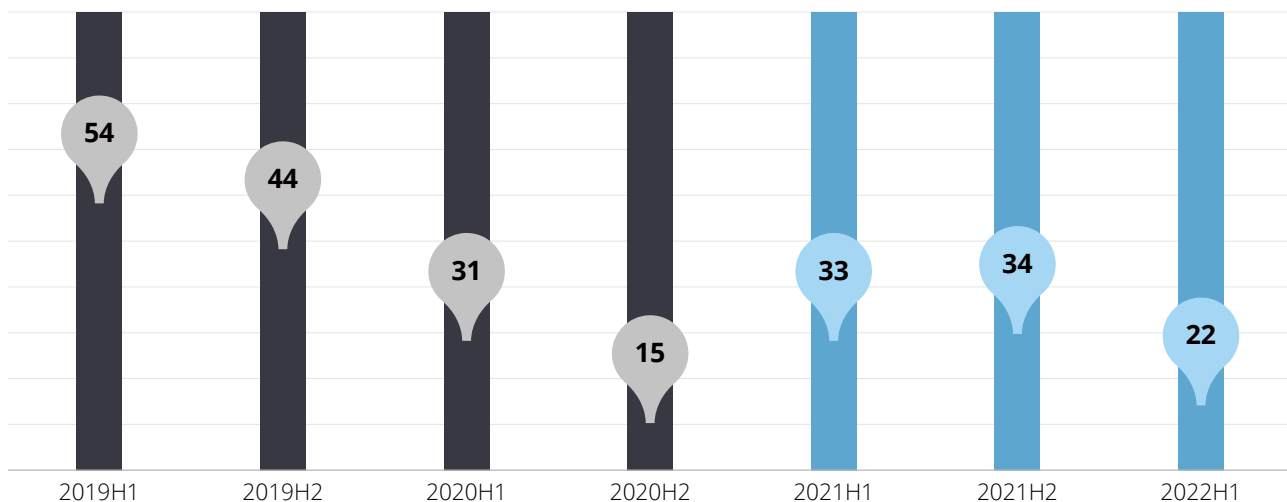
2.5. In-depth analysis of inbound and outbound investment

Pandemic repressed Chinese companies' enthusiasm for overseas investment

Amid the dual pressures of the pandemic and Sino-US trade frictions, the volume of overseas investment by Chinese companies plunged sharply in 2020 from

2019's level. In 2021, Chinese companies regained their enthusiasm for overseas investment, making 46% more outbound deals than they did 2020. The first half of 2022, however, due to the prolonged impact of the pandemic and a lack of market confidence, outbound deal volume dropped 33% year-on-year (Figure 23).

Figure 23: Transaction volume of outbound investment by Chinese companies (2019-H1 2022)

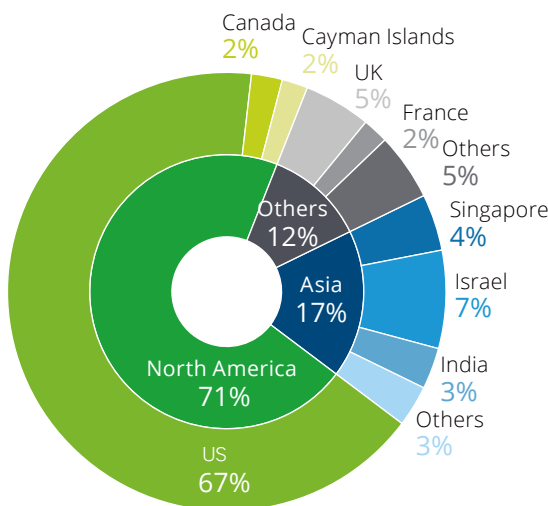


Sources: CVSource, Deloitte Research

Since 2019, Chinese capital has been involved in 263 outbound fundraising deals in the LSHC industry, including deals in North America, Asia, and Europe, with US-related deals the most common (Figure 24). From 2019 to June 2022, fundraising deals in the US

accounted for 67% of Chinese capital's LSHC outbound fundraising volume, with Asia (predominantly Singapore, Israel, and India), representing the second largest portion of 17%.

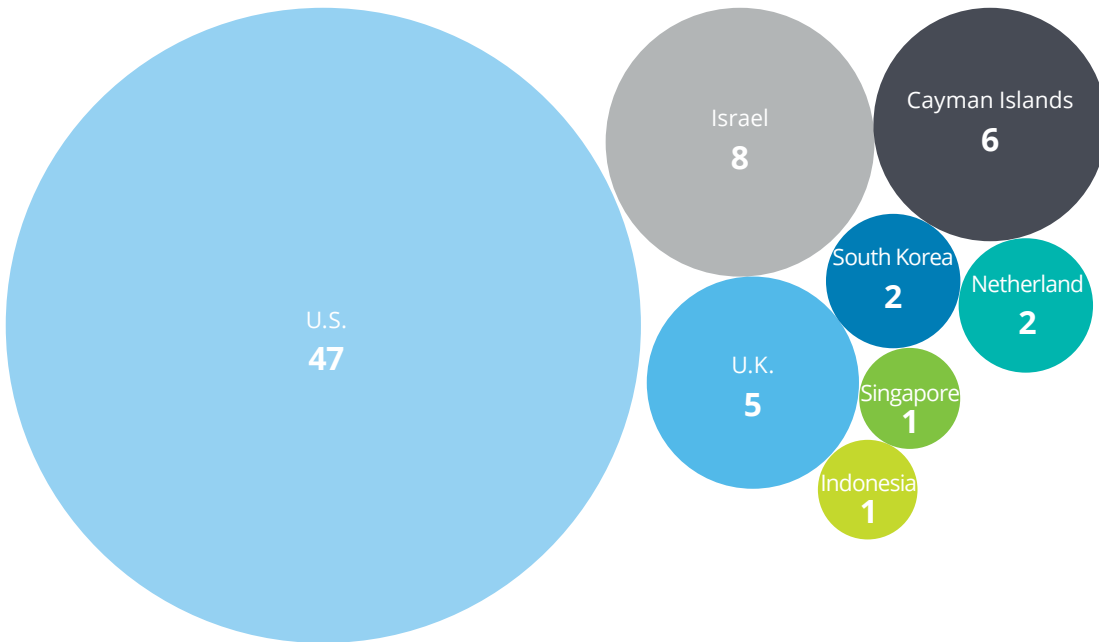
Figure 24: Overseas investment volume by target region from 2019-H1 2022



Sources: CVSource, Deloitte Research

From 2021 to the first half of 2022, the US was also the most popular market by deal volume with 65% outbound fundraising events in the LSHC industry by Chinese capital, followed by Israel's eight deals at 11.1% (Figure 25).

Figure 25: Overseas investment volume by target region 2021-H1 2022



Sources: CVSource, Deloitte Research

The top five overseas transactions by value disclosed from 2021 to H1 2022 were:

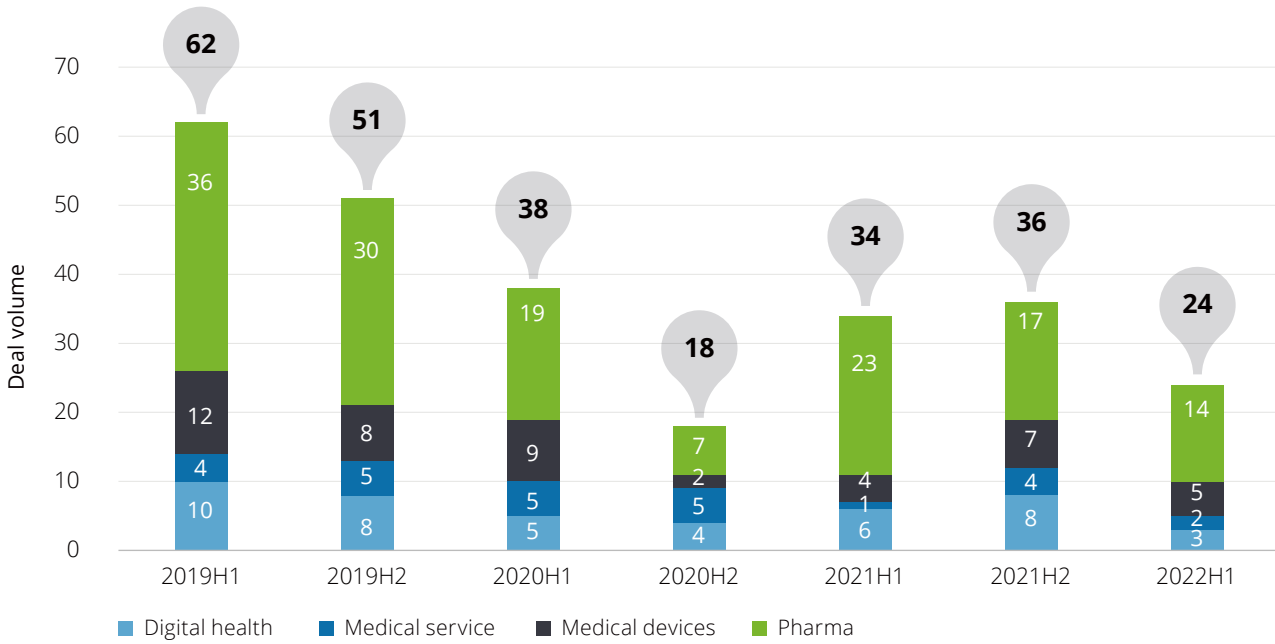
- July 2021, Nature's Fynd closed its C round at USD 350 million. The deal was led by SoftBank, with Blackstone, Balyasny Asset Management, GL Ventures, EDBI, SK Inc., and others also involved. Nature's Fyn is an

American nutritional food R&D service provider. It has independently developed the Fy™ animal-free protein, which can be used to produce artificial meat, artificial dairy products, protein powder, and protein drinks. The latest funding will sustain Nature's Fynd's growth, enable it to increase productivity, build partnerships, and expand globally.¹³

- April 2022, Tessera Therapeutics attracted USD 300 million in Series C funding from investors including SoftBank, ADIA, and Altitude Life Science. Tessera Therapeutics is a gene therapy biotechnology developer, engaged in the research and development of gene writing, the incorporation of therapeutic information into the genome to treat diseases from the source using a new genome engineering technology. The company intends to use the funding to scale up its research and development efforts.¹⁴
- July 2021, Imperative Care Inc. closed a USD 260 million Series D financing round led by D1 Capital, Ally Bridge, Bain Capital Life Sciences, Ascension Ventures, Delos Capital and Rock Springs Capital. Amed Ventures also participated in the round. Imperative Care Inc. is an American stroke treatment technology developer. Proceeds from the financing will serve to further the development and commercialization of a broad range of Imperative Care's stroke care technologies and build a strategic network of wholly-owned subsidiaries in multiple synergistic areas.¹⁵
- November 2021, Temasek, Ally Bridge Group, and TCG Crossover led a crossover-laden USD 215 million Series B round for Arbor Biotechnologies Inc., a developer of gene-editing therapies using CRISPR-based genome editors to customize treatments for disease. It plans to push ahead with programs targeting liver and central nervous system (CNS) diseases into the clinic with a portion of the funding.¹⁶
- May 2021, Esco Lifesciences announced the closure of its USD 200 million Series A round. The financing was led by Vivo Capital and Novo Holdings, with other investors including China Investment Corporation and EDBI. Esco Lifesciences is a life science technology developer in cell and gene therapies, mainly providing life science laboratory platforms and supporting academic and scientific research, clinical practice, and biopharmaceutical R&D and manufacturing.¹⁷

China's outbound fundraising deals are mainly focused on the pharma segment (Figure 26). In 2021, there were 40 deals in this segment, accounting for 57.1% of outbound deal volume. In the first half of 2022, the proportion climbed again to 58.3%.

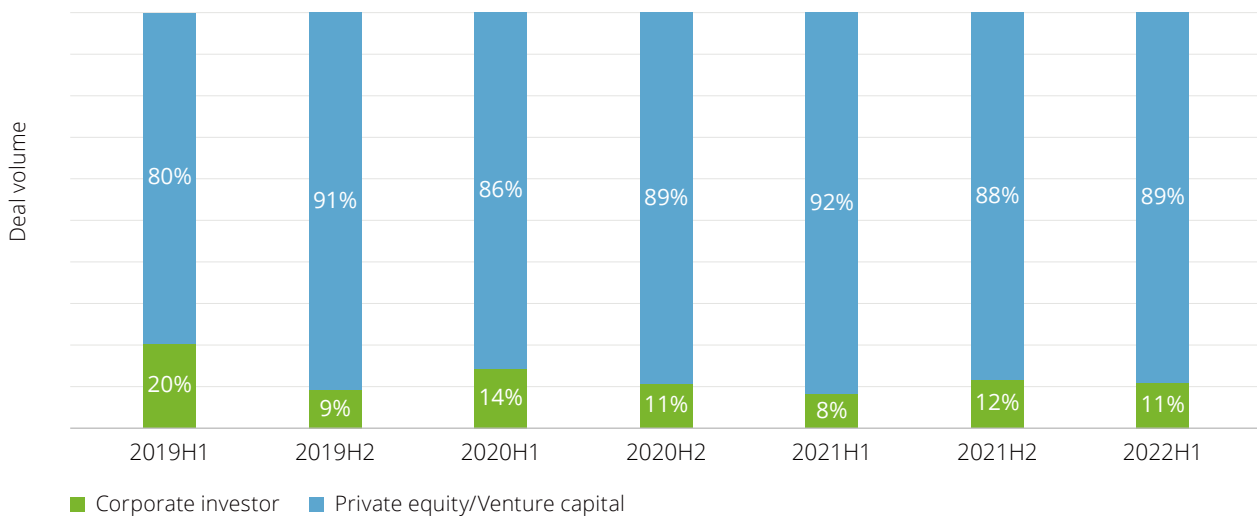
Figure 26: Overseas fundraising deal volume by target industry (2019-H1 2022)



Sources: CVSource, Deloitte Research

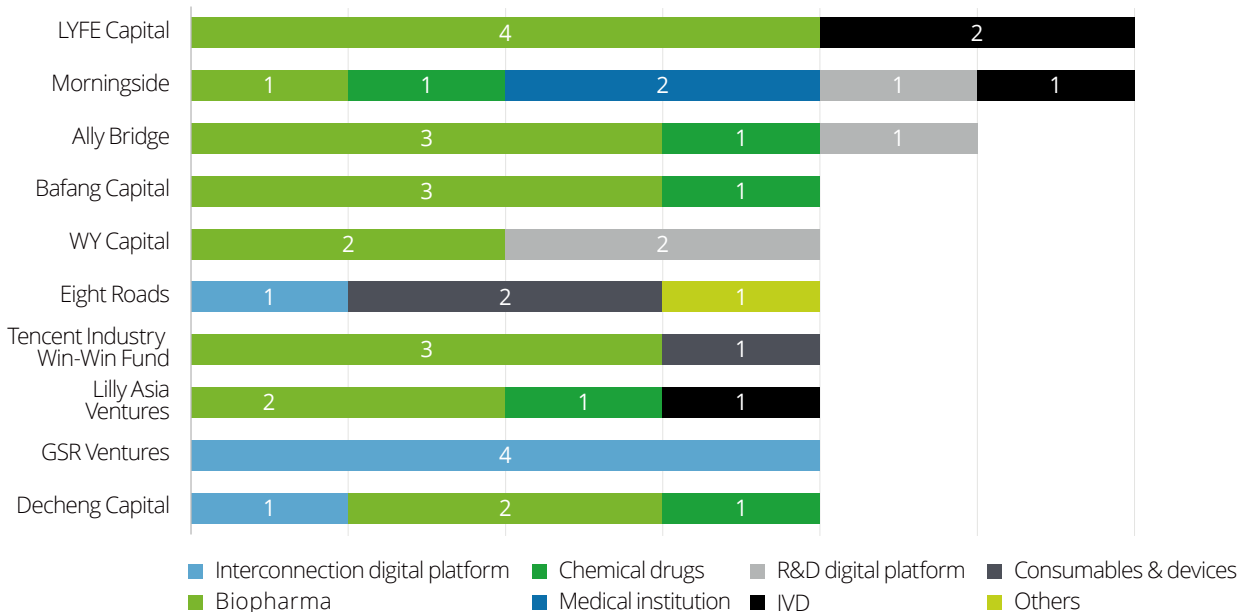
From 2021 to the first half of 2022, roughly 90% of outbound deals were instigated by PE/VC firms (Figure 27). LYFE Capital, Morningside, and Ally Bridge Group were active players in overseas markets (Figure 28), with biopharma and IVD marked as their favored segments.

Figure 27: Outbound fundraising deals volume by investor type



Sources: CVSource, Deloitte Research

Figure 28: Top 10 most active overseas investors (2021-H1 2022)



Sources: CVSource, Deloitte Research

Private entities' top five outbound fundraising deals from 2021 to the first half of 2022 by value were (excludes undisclosed value deals):

- March 2022, Betta Pharmaceuticals participated in the USD 80 million F round of US Xcovery Holdings, Inc. Xcovery Holdings, is a research and development company focused on the next-generation of tumor therapeutics using small molecule kinase inhibitors. The two parties will deepen their work in the R&D of small-molecule tumor-targeted drugs and strive to introduce more therapeutic drugs with clinical applications to benefit patients.¹⁸
- May 2021, MicroPort put money into Rapid Medical's USD 50 million Series D financing in South Korea. Rapid Medical is a developer of safe and effective neurovascular medical equipment. Its adjustable remodeling mesh Comaneci has been utilized in more

than 500 successful aneurysm treatments worldwide. MicroPort® NeuroTech became the company's largest shareholder by taking the lead in D round investing. The parties will pool resources to create a completer and more diversified product portfolio for stroke and ischemia treatment and provide complete stroke treatment solutions for doctors and patients.¹⁹

- April 2022, 4C Medical closed its USD 35 million Series C financing round with the participation of MicroPort CardioFlow. 4C Medical Technologies is a medical device manufacturer focused on the development of the AltaValve™ Transcatheter Mitral Valve Replacement (TMVR) device. The company intends to use the funds to develop its AltaValve TMVR technology, highlight its differentiated design, and expand the treatable patient basis via streamlined procedures.²⁰

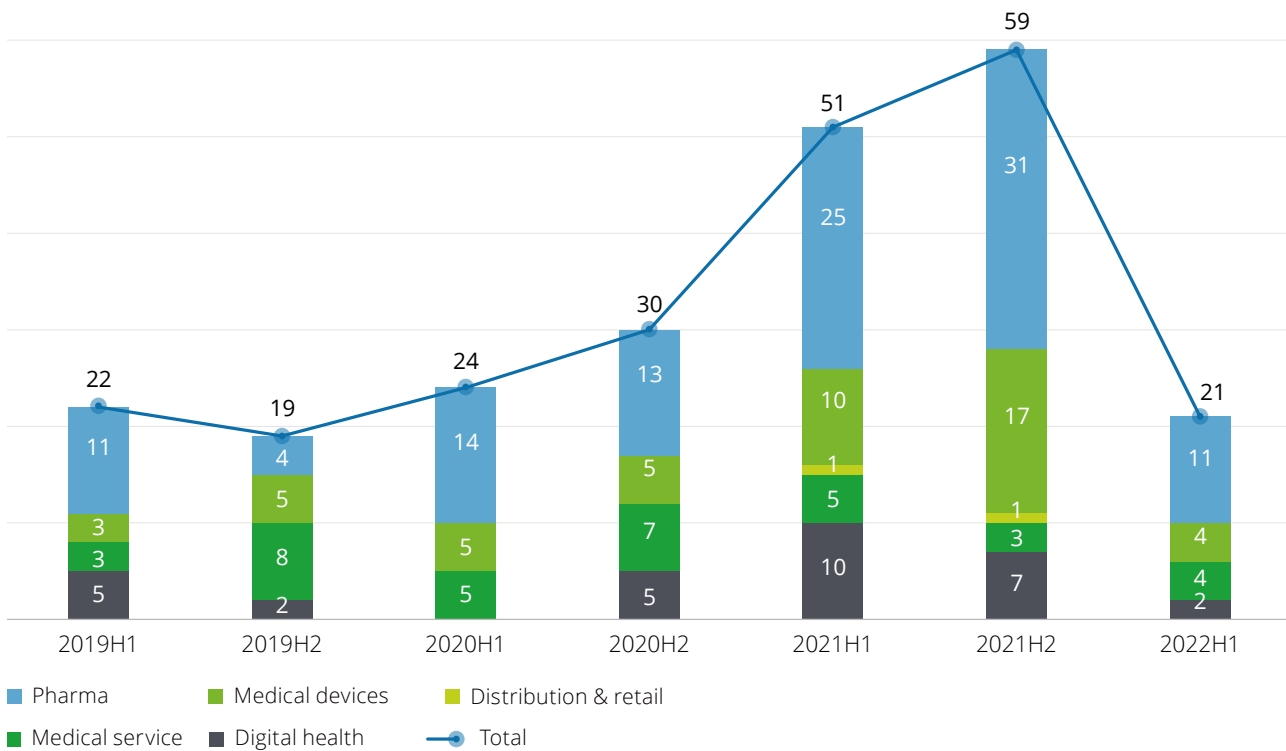
- March 2022, Johnson & Johnson Development funded the Osteal Therapeutics B round financing, bringing the financing to USD 30 million. Osteal Therapeutics, Inc. is a joint anti-infection drug developer in the US committed to developing innovative products for the treatment of infections after artificial joint replacements. According to the company, funds raised in this round will be primarily used to move forward with Osteal's product VT-X7 for the treatment of periprosthetic joint infection (PJI) after artificial replacement into late clinical trials.²¹
- March 2022, Sirnaomics supported the USD 27 million A round financing of RNAimmune, Inc., a US manufacturer and developer of mRNA therapeutics and vaccines, dedicated to meeting urgent clinical needs in viral infectious diseases, tumors, and rare

diseases. The company plans to use the funds to further its R&D of mRNA vaccines and drugs.²²

Inbound fundraising deals by overseas capital converges on LSHC

In 2021, benefiting from the effective prevention and control of the pandemic, investment showed signs of recovery in the domestic market and regained momentum globally. The number of inbound deals by overseas investors soaring to 110, almost double its volume in 2020. In the first half of 2022, the reemergence of the pandemic and an economic downturn undermined the confidence of overseas investors, with the volume of inbound fundraising deals dropping to the levels seen in 2019. The hotspots of inbound investment are concentrated in the pharma and medical devices segments (Figure 29).

Figure 29: Inbound fundraising deal volume by target segment



Sources: CVSource, Deloitte Research

The top five inbound transactions by disclosed value from 2021 to H1 2022 were:

- February 2021, OrbiMed supported the E round financing of Yuanxin Technology (Miaoshou Doctor), which raised RMB 3 billion. Miaoshou Doctor, a subsidiary of Beijing Yuanxin Technology Group Co. is a unicorn enterprise in internet healthcare and medication management in China. Miaoshou Doctor and Yuanxin Pharmacy have built a national platform for doctor-patient follow-up and medication and prescription filling. Through this round of financing, Yuanxin Technology will develop its service capabilities and enhance its competitive advantages in internet healthcare, medication management, and health insurance, to amplify its strengths in "doctor-patient-medicine-insurance" services.
- March 2021, Qatar Investment Authority (QIA) invested USD 2.77 billion in the Series A of Siemens Shenzhen Magnetic Resonance Ltd., a developer of magnetic resonance imaging (MRI) equipment.
- December 2021, Qilu Ruige received a strategic investment of USD 1.5 billion financed by Eli Lilly and Company. Qilu Ruige develops innovative drugs for tumors and the immune metabolism, focusing on R&D of drugs for tumors, autoimmunity, and metabolism. Its main offerings include first-in-class innovative drugs and best-in-class generic drugs. The two parties will work together closely on preclinical drug development, clinical research, and commercialization and jointly develop innovative treatments for metabolic diseases.
- August 2021, Temasek and other overseas investors funded the USD 700 million C round of ABOGEN, a biotech company that develops new nucleic acid drugs. This round will offer extra support to ABOGEN's acceleration of the clinical development and internationalization of COVID-19 mRNA vaccine products. Through integration with AI and related technologies, this capability will enable the company to further enhance the R&D competitiveness of its mRNA platform, rapidly expand the clinical line, improve production capacity, and accelerate commercialization.
- February 2022, Hudson Bay Capital, with other overseas investors, took part in the Series D financing of Hong Kong Asia Medical, with total financing reaching USD 400 million. Hong Kong Asia Medical operates a cardiovascular hospital, providing users with implantable cardiac monitors, cardiac resynchronization therapy, implantable cardioverter defibrillators, two-dimensional and four-dimensional cardiac ultrasound examinations, and other services.



3 Outlook for the life sciences and health care industry in China



1B

Since the later part of 2021, the capital market in the LSHC industry started to cool off, and valuations of biotech companies by investment institutions also trend downwards. It was not until late November 2022 that a change occurred as A-shares and Hong Kong stocks rebounded, and the capital market gradually recovered. In the next few years, fundraising and M&A activities are expected to grow steadily. On a related note, science and technology, which includes the LSHC industry, will also gain more capital support to grow.

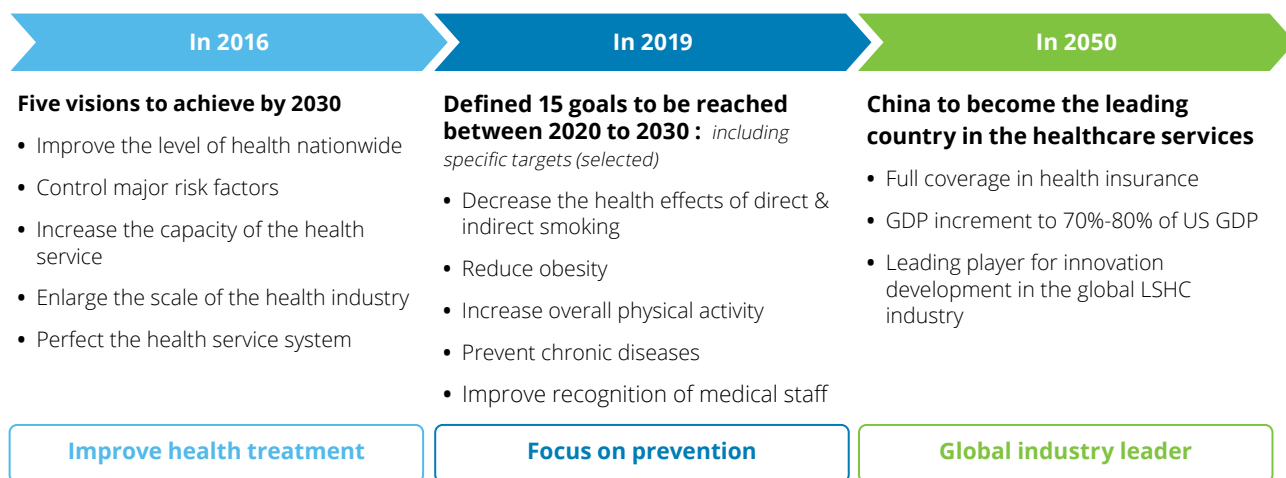
As one of the key industries to be developed in China during the 14th Five-Year Plan period, LSHC industry has been supported by policies across multiple segments and tracks. Furthermore, the continuous advance of medical reform and the development of the Healthy China 2030 initiative will further boost the growth of China's LSHC industry. According to our research, new opportunities for future capital market development in the LSHC industry will be distributed across five main fields:

3.1. Continuous advances in the development of Healthy China 2030 drawing a people-oriented pharmaceutical and medical development blueprint

Since the promulgation of the *Healthy China 2030 Planning Outline* in 2016, Healthy China has been the developmental axis of the LSHC industry in China. It aims to provide more comprehensive protection of

people's health through more efficient use of medial resources and the implementation of medical reforms on the supply and demand sides. At a practical level, it will also address issues around accessibility to medicine and equipment while integrating and redistributing medical resources. In doing so, it will realize full-cycle coverage of medical and health services (Figure 30).

Figure 30: The development plan and phased goals of Healthy China 2030



Sources: Public information, National Health Commission, Deloitte Research and Analytics

Supply side reforms are manifested mainly as the dynamic adjustment of the National Reimbursement Drug List (NRDL) and the implementation of national VBP with explicit quantities. The VBP of pharmaceuticals and high-value consumables are being combined to increase efficiency through quantity-based, preferable prices, while further stimulating local enterprises' innovative development and breakthroughs. As of the first half of 2022, seven and three rounds of pharma and consumables national VBP have been implemented respectively. And saving a total of around RMB 192 billion. These orders covered 279 types of drugs and three high-value consumables (coronary stents, artificial joints, and artificial spines). Biological products, TCM, and medical equipment have also been included in several provincial VBP. The coverage of national VBP will expand rapidly soon to further deepen medical pricing reform.

- **Provincial VBP of biological products:** On 30 September 2021, Guangdong Medicine Exchange publicly solicited opinions on the Document on Alliance Procurement of Diclofenac Sodium and Other 153 Pharmaceuticals from Groups with Explicit Quantities by Guangdong Province (exposure draft). Guangdong, in unison with Shanxi and another 10 provinces, districts, and Xinjiang Production and Construction Corps., planned to implement provincial VBP for 153 generic drugs and biological products in every dosage form and specification listed in the NRDL. This included blood products and biological products, such as rituximab, recombinant human coagulation factor VIII, recombinant human growth hormone (Somatropin), and others. All available blood products have won the tender in this VBP round.

- **Provincial VBP of TCM:** In December 2021, the results of provincial VBP of TCM by a 19-province alliance, led by Hubei were made public, has been announced. 182 products from 157 pharma companies have participated in the tendering and the procurement value was nearly RMB 10 billion. Ultimately, 97 pharma companies and 111 products have won the bid with a success rate of 62.0%. The average price-cut rate of the winning drugs was 42.3%, with a highest price-cut rate of 82.6%.
- **Provincial VBP of medical equipment:** As of 30 August 2022, public medical institutions in Anhui Province have completed the bid opening and evaluation of 39 types of equipment for nine projects in six categories, with a total procurement value of around RMB 390 million. According to preliminary calculations, this is expected to save about 33%, or RMB 190 million in equipment procurement costs for medical institutions. Moreover, the number of successful bids for domestic brand equipment has risen remarkably, reaching 19 in total and accounting for 48.7% of the equipment that went through bid opening and evaluation procedures. This shaped a new competitive landscape between domestic and imported equipment, inspiring a new development pattern in the medical equipment industry.

The National Healthcare Security Administration first launched NRDL negotiations for innovative drugs in 2016. In 2017, dynamic adjustments to the NRDL were made, marking the start of annual NRDL negotiations. As of November 2022, the NRDL has been adjusted dynamically five times, with the sixth NRDL adjustment already underway. Judging from the adjustment results of the NRDL at the end of 2021, an increasing number of "high-priced" and

"next generation" drugs have been included in the list, with many of those included in the NRDL soon after being approved for marketing in 2021.

The average time from the launch of an innovative drug to it being included in the NRDL has reduced from 4.6 years in 2017 to 1.1 years in 2021.²³ Such a sharp reduction demonstrates the support of the National Medical Products Administration for innovative drugs. Furthermore, multiple innovative drugs urgently needed for clinical practice in China were included in the NRDL in 2021, including sodium oligomannate capsules (Jiuqi yi), nusinersen, and replagal, indicating that more importance is being attached to the clinical value of innovative drugs in the NRDL. This suggests innovative drugs that can meet China's actual clinical needs will enjoy greater policy support.

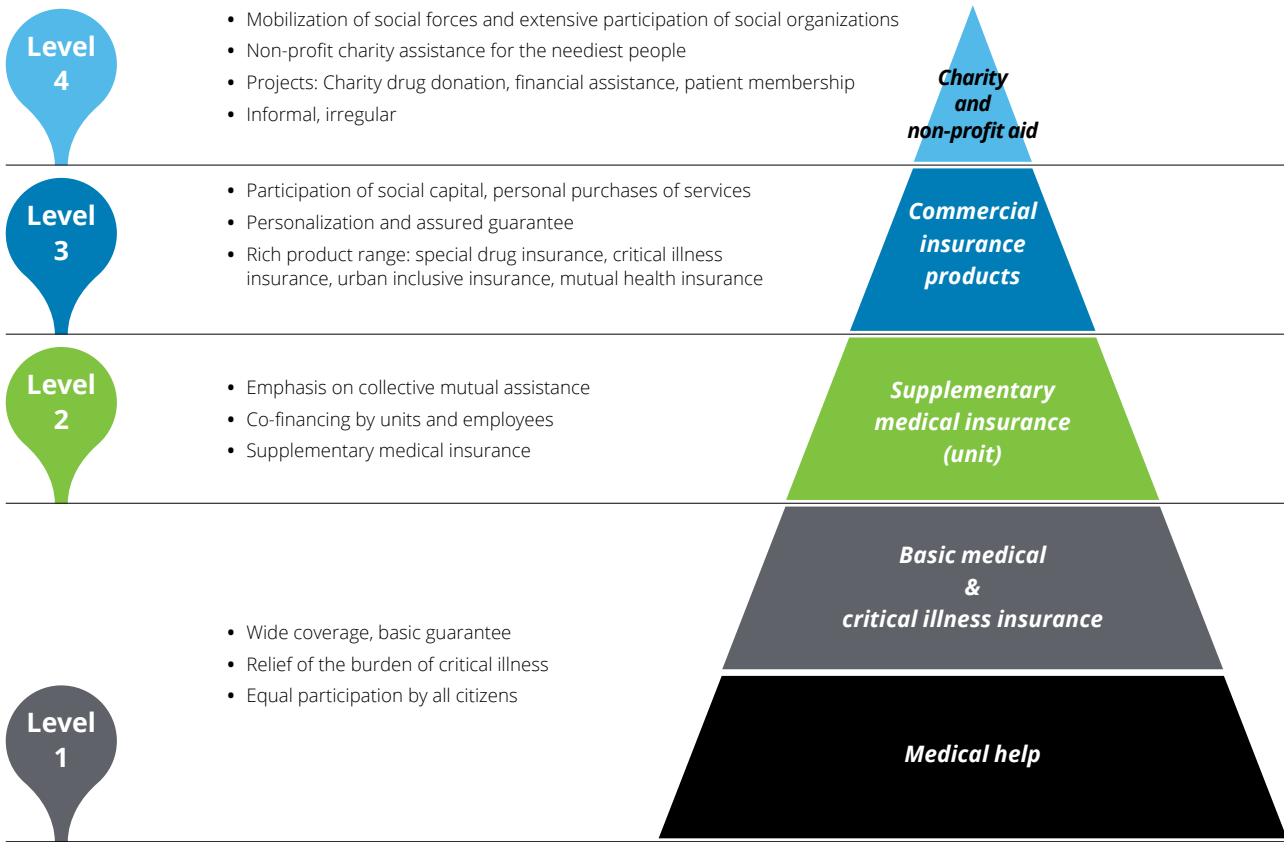
Reform on the demand side is bringing the development of diversified and innovative payment models and the interconnection of medical construction into focus. China's medical insurance payment system has undergone various stages of development, from realizing wide coverage to improving affordability and promoting the construction of a diversified medical payment model, to creating a sustainable medical insurance system. (Figure 31). The participation rate of China's basic medical insurance program rose from 7.3% in 2002 to 96.4% at the end of 2021, but the balance rate descended from 32.6% to 16.3% in the same period,²⁴ indicating constant declines in affordability.

In the Opinions issued in March 2020, it was proposed that coordination of high-quality

development of medical insurance should occur at the highest level. The rationale behind this was the rising number of innovative drugs and the impact of new technology breakthroughs that could challenge the payment ability of existing medical insurance funds. The state has since begun to explore diversified payment methods, accelerate the development of commercial medical insurance, and build a diversified medical security and payment system. As of the first half of 2022, 149 city-sponsored insurance "medicare" products have been introduced across China, creating a three-level architecture for a diversified medical payment system with the fourth level under construction.



Figure 31: Diversified medical payment model



Sources: Xinkangjie, Deloitte Research

In the interconnection of basic medical construction, the National Health Commission aims to achieve future-proof medical reform and progress through the creation of hierarchical medical treatment and a diversified and connected medical alliance. As of 2021, 15,343 county-level medical infrastructure facilities have been built, and more than 92.1% of existing hospitals have upgraded their information management systems (such as HER).²⁵ All Grade 3 hospitals had joined the medical alliance network by the end of 2019, and more than 15,000 hospital alliances have been established as of July 2021.²⁶

China's medical services should manage to expand infrastructure and provision for public and private hierarchical medical treatment; mature the major disease prevention mechanism and the control and coordination mechanism of primary healthcare; expand the coverage of diagnostic infrastructure to meet growing demand for specialized testing; diversify medical and health service content; and make their way into health care, rehabilitation, elderly care, and other service areas from traditional caregiving services.

3.2. Diversified collaboration model unlocked among multinational pharma companies under the original innovation development plan

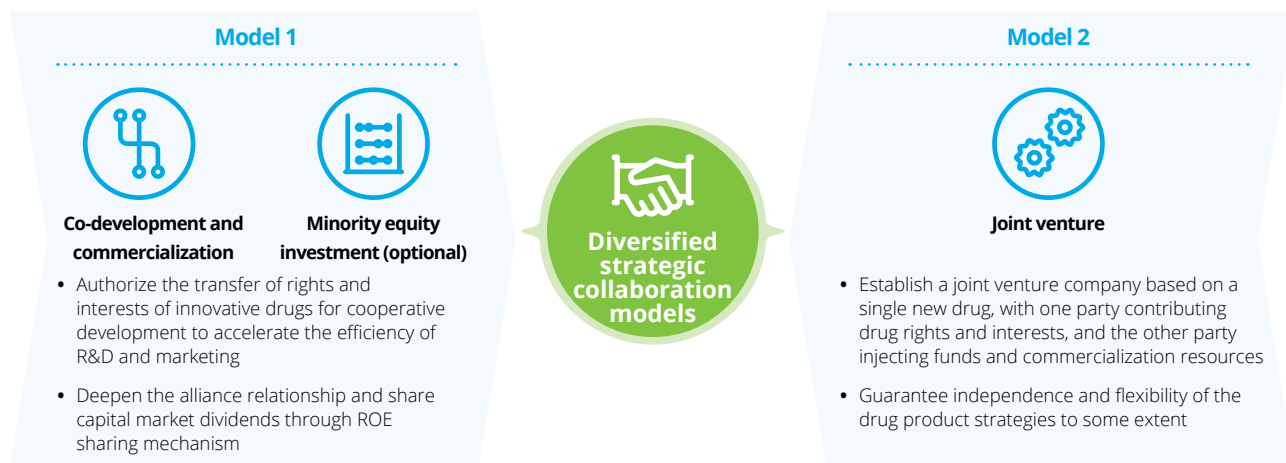
The previous section discussed the key elements and support for innovative development, the clinical value-oriented development principles for innovative drugs, and detailed guidelines on the benefit and cost assessment for those drugs in China. During these developments of recent years, domestic pharma companies have gradually entered the harvest season of innovative drugs and foreign pharma companies in China have faced fiercer market competition. A wide array of foreign pharma companies has begun to invest more in frontier areas in China and establish strategic partnerships with local peers to deepen their deployment in the Chinese pharmaceutical market (Figure 32).

From 2019 to 2020, when the pharmaceutical sector was booming in China's secondary market, many multinational pharmaceutical companies chose to participate in minority equity investments in

biotech companies to deepen the long-term interest binding and share in capital market dividends. These partnerships include the tie ups between Amgen and BeiGene, as well as Pfizer and CStone Pharmaceuticals. At the same time, other companies adopted a joint venture model instead, based on the commercialization of a single new drug variety, with the parties typically sharing the same equity proportion. For example, Fosun Kite and JW Therapeutics introduced the CAR-T therapy to China, and Junshi Biosciences and IMPACT Therapeutics have established a joint venture to develop PARP inhibitors.

Regardless of the approach, we expect more cross-border collaboration to emerge, especially during the 14th Five-Year Plan period, which is underscored by the "dual circulations" strategy. Partnership between overseas and local companies will generate a 1+1 is > 2 effect, shortening China's path to the world while accelerating local deployment.

Figure 32: The different strategic cooperation models of multinational and local pharmaceutical companies



Sources: Public information, Deloitte Research

3.3. Preferential policies herald opportunities for TCM industry

The innovative development of TCM was highlighted in the report of the 20th CPC Congress. In future, China's pharma industry will pay greater attention to creating a pattern in which the development of traditional Chinese and Western medicine weigh equally. Since the report of the 18th CPC Congress, the TCM industry has entered a period of opportunities with several examples of policy support. The State Council has issued more than seven important policy documents related to the development of TCM, touching upon topics including the protection and development of TCM materials, the development of Chinese medicine services, and the acceleration of R&D of TCM.

In March 2022, the State Council promulgated the *Plan for the Development of Traditional Chinese Medicine during the 14th Five-Year Period (the "Plan")*, which says that by 2025 the health service capabilities of TCM will have been improved, the revitalization and development of TCM will have achieved satisfactory results, and its unique advantages in the development of Healthy China will have been utilized fully. In September 2022, the Promotion Office of the Healthy China Initiative, the National Health Commission, and the National Administration of Traditional Chinese Medicine issued the *Implementation Plan for Special Health Promotion Activities of Traditional Chinese Medicine for the Action of Healthy China*, proposing to integrate TCM throughout health promotion, major disease prevention and treatment, and disease diagnosis and treatment. With the promulgation of various other supporting policies related to TCM, R&D of TCM will become more standardized and scientific to create the Healthy China pattern of emphasizing both Chinese and Western medicine.

During the 14th Five-Year Plan period, development of the TCM industry will have four main themes:

- **High-quality development:** To put forward pragmatic operation suggestions targeting the practical challenges involved in the high-quality development of the TCM industry, including building stronger leading TCM hospitals; optimizing backbone TCM hospitals; strengthening the grassroots TCM service network; improving the construction of TCM departments in other medical institutions; and using TCM more in the prevention and control of infectious diseases and public health events.
- **Stronger capacity building of TCM medical institutions:** Fifteen new main development indicators related to the development of TCM have been added to the Plan, adding two more indicators than were in the 13th Five-Year Plan. By comparing development indicators, during the 14th Five-Year Plan period, more importance will be attached to the capacity building of TCM-related medical institutions, which is expected to drive the construction of related medical institutions and departments including clinics for rehabilitation, geriatric medicine, and TCM.
- **New TCM-related medical infrastructure:** The Plan clearly defines support for local governments to promote qualified public TCM hospital construction projects through special bonds and other channels and encourages financial institutions to support for qualified projects in TCM.
- **TCM chain services:** The Plan also signals the need for TCM professional and technical personnel to establish TCM medical institutions, and social medical institutions to build TCM departments to accelerate deployment of TCM chain services.

3.4. Accelerated localization and introduction of high-end products by overseas medical device companies amid the preference for homegrown replacement

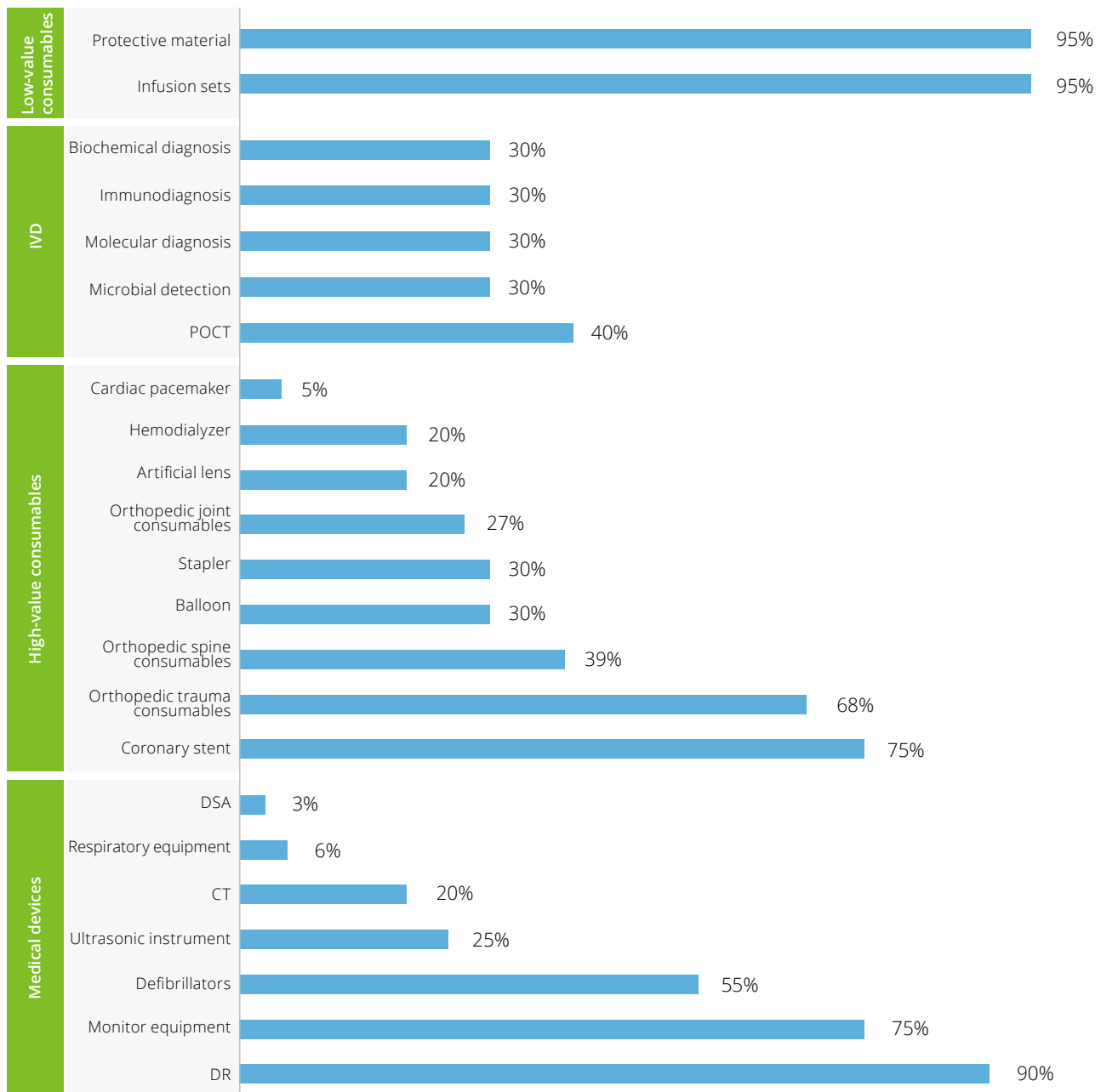
Last year, we predicted that the localization of medical equipment would go further. This year, we expect the preference for domestic alternatives to be unchanged, which means foreign medical device companies need to accelerate their introduction of high-end and innovative products to remain competitive in the Chinese market. On 9 November 2022, the Ministry of Finance stated that it will actively promote the provision of opportunities for foreign companies to secure government procurement to ensure fair competition between domestic and foreign players.²⁷ In July 2022, the Ministry of Finance issued the Notice on the Solicitation of Public Comment on the Government Procurement Law of the People's Republic of China (Revised Exposure Draft) which clarifies that "products produced in China meeting the specified value-added ratio and other conditions shall enjoy preferential review in government procurement activities". This means foreign medical device companies that produce and manufacture in China can also enjoy preferential policies.

In October 2021, the Ministry of Finance issued the *Notice on Implementing Relevant Policies for Equal Treatment of Foreign-funded Enterprises in Government Procurement Activities*, which clearly states that products produced by domestic and foreign players in China shall not be treated differently. This means medical devices produced in China, whether by domestic or foreign players will be treated equally in government procurement.

The implementation of medical reform, involving VBP of medical devices, has brought great change to the medical devices market landscape in China, especially in high-value consumables. At the same time, under the continuous promotion of Made in China 2025, the share of imported medical devices have shrunk, with it generally being replaced, at present, by domestic. Low-value consumables are now basically replaced by local products. Products for orthopedics such as artificial knee joints and spines, vascular intervention including coronary stent and balloons, and ophthalmology (e.g., intraocular lenses, etc.) among others, are covered by the national and provincial VBP (Figure 33).



Figure 33: Comparison of localization ratios of medical devices



Sources: iResearch, Deloitte Research

However, in some procurements this year, although it is clearly stipulated that imported products could not participate in the bidding, foreign brands still stood out. For example, in April 2022, a Philips ventilator won the *Public Bidding and Procurement of Equipment (Image) for Primary Medical and Health Institutions and Professional Public Health Institutions in Jiangsu Province*, and in August 2022, Siemens became a provider of domestic equipment by winning a Cancer Hospital Chinese Academy of Medical Sciences bid for a medical magnetic resonance imaging system.

With the notice issued by the Ministry of Finance, foreign medical device companies are increasingly deepening their "localization" efforts. More foreign medical device companies are expected to invest in localization and accelerate the introduction of local production of international high-end, technological and innovative medical devices to speed up market access and coverage.

3.5. Rapid growth of demand for consumer medical services following improvement of industry standardization and post-epidemic consumption rebound

As the whole world has lifted epidemic prevention and control measures, China is now also relaxing measures step-by-step to facilitate people's transition back to normal life thanks to its previous prevention and control results. According to the 10th edition of the *Notice on Further Optimizing the Prevention and Control Measures for the COVID-19 Epidemic and Carrying out Scientific and Precise Prevention and Control* released in November 2022, secondary contacts will no longer need to isolate, and the isolation term will be shortened to 5+3 days. These stipulations indicate more relaxed measures of epidemic prevention and control and a trend towards scientific and precise prevention and control, which is conducive to the recovery of offline medical services.

In the post-epidemic era, demand for medical services with high-consumption attribute, such as aesthetic medical and regenerative medicine, are growing rapidly, and the continuous intensification of industry regulation is driving standardization and normalization. In March 2022, the National Medical Products Administration issued the *Announcement on Adjusting Part of the Content of the Medical Equipment Classification Catalog (No. 30, 2022)*, to adjust the categories of some aesthetic medical products, and strengthen the use of officially licensed products by aesthetic medical institutions to ensure consumers' health and safety, with intradermal facial rejuvenation injection products officially listed as Class III medical devices. Also, a wide variety of innovative regenerative medicine products entered the aesthetic medical product market in the second half of 2021, including successful debuts by "baby-skin" and "maid-look" injections. These trends will boost overall development of the aesthetic medical industry, which is expected to reach a market size of more than RMB 12 billion in 2023.²⁸

In addition, the acceleration of population aging continues to drive up medical demand, and the need for chronic disease management it is bringing about will play a catalytic role in the development of high-quality digital healthcare services and innovative digital products. People's awareness of self-health management is also improving. Additionally, in 2022, "sub-health improvement" (55.9%), "family health management" (37.1%) and "chronic disease management" (32.8%) took the top three places among the various types of digital healthcare management services.²⁹ Given the immense vigor in digital healthcare, we expect demand for smart wearable devices to see exponential growth. China's smart watch market is forecast to total RMB 144.16 billion in 2025, with CAGR of 17.9% from 2021 to 2025.³⁰

4 Conclusion



With 2021 as the first year of the 14th Five-Year Plan period, the LSHC industry has new and clear development goals. The energy of the overall M&A activity has increased significantly in 2021 and achieved a new high number of deals since 2019. Major deals were concentrated in the biotech, medical device and traditional Chinese medicine sectors. In the last year's report, we have forecasted five major trends in China's LSHC market in 2021. These trends have been realized and made some breakthrough in 2021 and 2022:

- Strengthen the disease prevention promotion: In the newly released Healthy China 2022 Work Highlights, the innovation development and breakthrough in multiple key sectors have been further emphasized. Including the accelerating drug innovation development and breakthroughs for cancer, cardiovascular, respiratory and metabolic diseases. In addition, genetic testing has been set as the key emerging industry and the promotion of early diagnosis and treatment of cancer has also been brought up again. Promote the popularization of early diagnosis of cancer from policy-wise, in-depth construction of a nationwide cancer prevention and treatment system, and ultimately transform from focusing on disease treatment to a new big health landscape that consist of both disease treatment and prevention.
- Innovation upgrade and digitalization in LSHC: As aforementioned, NMPA and CDE have issued a number of guidelines in both 2021 and 2022 to promote innovation toward more differentiation and originality. At the same time, digital healthcare investment events also elevated in 2021, with a total of 15 large deals in value (above USD 500 million), including two mega-deals of over \$1 billion. The digital development has been further accelerated in 2021 and continues.
- Acceleration in pharmaceutical outsourcing (CXO): As discussed earlier, CXO growth is driven by increased demand for R&D and manufacturing of next-generation drugs and the pursuit of greater cost-effectiveness. The average deal value for CXO sector has reached USD 150 million in 2022, the highest among all subsectors in the first half of 2022, highlighting the continued growth opportunity.
- Consolidation of medical institutions: A total of 32 medical institution-related M&A deals happened in 2021, up a total of 19 from 2020, and 13 deals already achieved in 2022, the same as the total deals volume in 2020. The consolidation in the medical institution market is still ongoing and the pace of consolidation is steadily increasing.
- The demand for elderly care services continues to expand: As the world's most populous country, China's aging population has resulted in a continued expansion of the demand gap for elderly care services. According to the National Bureau of Statistics, the morbidity rate of the aging population is much higher than that of the total population, resulting in the rise of clinical demand for chronic and degenerative diseases.

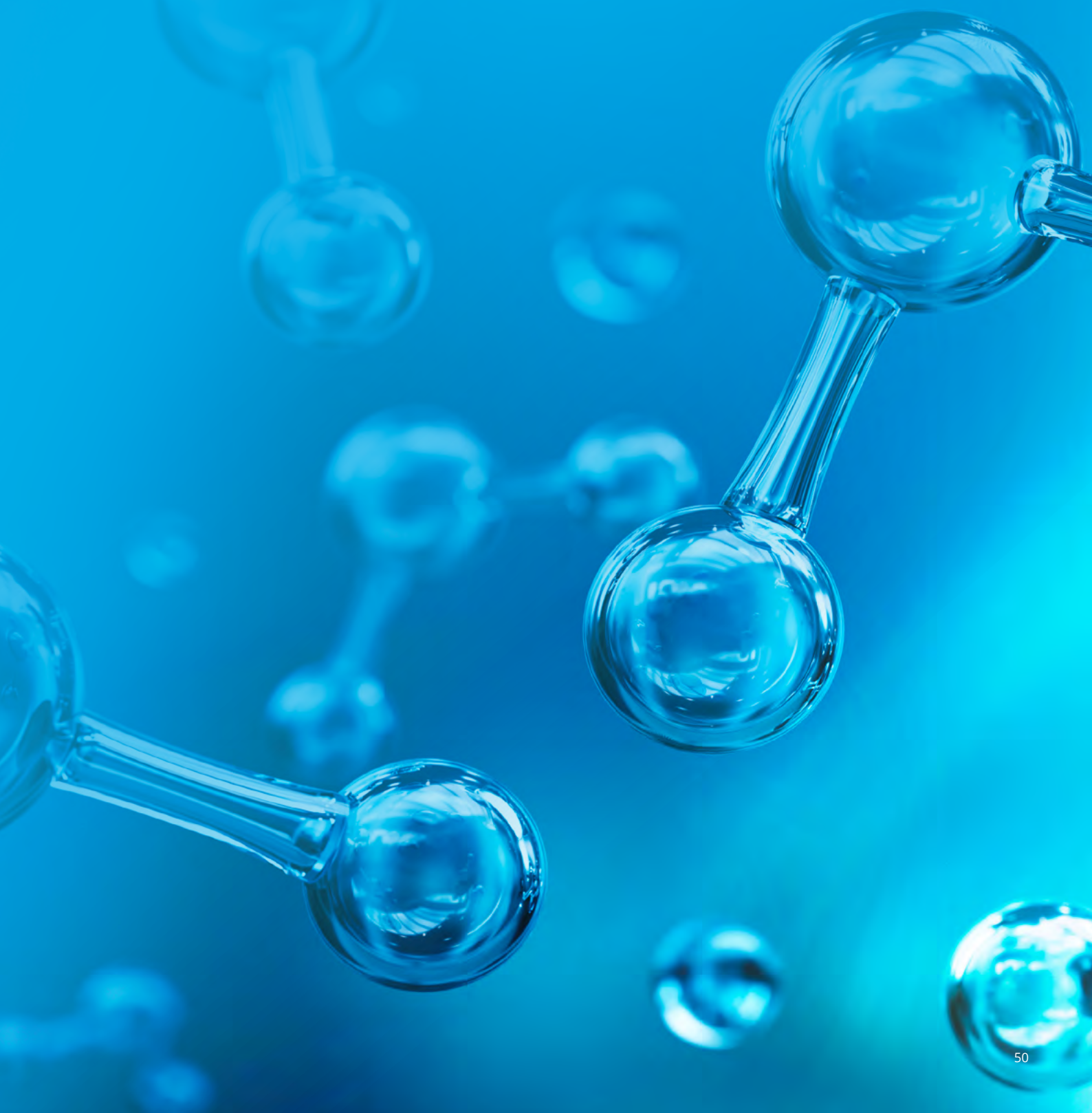
Throughout the first half of 2022, the M&A and primary market in China's LSHC industry was significantly impacted by valuation pullbacks in biotech as well as epidemic prevention and control and entered a cooling period. Both deal volume and value have declined in the first half of 2022 compared to in the first half of 2021. However, from the second half of the year, with the continued optimization and flexibility of local epidemic prevention and control policies, as well as the further clarification of the overall development direction of the industry after the 20th National Party Congress report, the energy of the LSHC industry capital market gradually recovered. Onwards, we predict that the future development will focus on the following five major trends:

- **Continuous advances in the development of Healthy China 2030 drawing a people-oriented pharmaceutical and medical development blueprint:** to promote the realization of a more "people-oriented" and "clinical economic benefits through the promotion of medical reform on both the supply and demand side. And eventually achieve a whole cycle protection of people's health.
- **Diversified collaboration model unlocked among multinational pharma cos under to the original innovation development plan:** With stricter regulation scheme and increasing government support for original innovation, more and more foreign companies are choosing to build strategic partnerships with local companies to accelerate their investment in innovation projects at early stage and the market access in China.
- **Preferential policies herald opportunities for TCM industry:** This year's 20th National Party Congress report has emphasized the importance on the innovative development of TCM industry. Combined with the policies related to TCM development issued over the past five years, the TCM industry has officially entered the rising period. The major development focuses including the upgrade of TCM innovation, the improvement of TCM-related infrastructure and medical service.
- **Accelerated localization and introduction of high-end products by overseas medical device cos amid the preference for homegrown replacement:** under the promotion of Manufacturing China 2025, the deployment of local manufacturing becomes more and more important for foreign companies. By the strengthening of the medical reform, foreign companies are enlarging the investment in localization, including build up local production sites and the import of high-end innovative products, to achieve a faster market access and larger market share.
- **Rapid growth of demand for consumer medical services following improvement of industry standardization and post-epidemic consumption rebound:** market standardization and post-epidemic consumption rebound will drive higher demand for medical services with high consumption attributes, especially in the fields of aesthetic medical and health management. At the same time, the utilization of digital health will further increase under the trend of continued demographic change, especially for products with self-health management functions such as smart wearable devices.

Overall, with the gradual optimization of epidemic prevention policies in the end of 2022 and the recovery of the domestic economy, the capital market of the LSHC industry has a brighter future development. Meanwhile, there might also be a potential biotech consolidation as there are too many biopharma cos are chasing the same type of drugs and being too smallish. With bearish valuations all across, there is ground to combine and merge with each other to become bigger and more relevant. Thus, allowing some exit or a value re-set for those who would want to reconsider their current sector exposure.

We expect to see more investment opportunities to come up in the short term, especially in the sectors covered by the five trends mentioned above, reversing the downward trend of the market cooling-off period in 2022 and resuming a good growth trend in 2023.

5 Appendix



Top 10 fundraising deals by value from 2021 to H1 2022

Announced date	Industry	round	Deal value (USD 100 million)	Target	Bidder	Remark
2/9/2021	Digital health	E	30.0	Center Technology	Sequoia China and CICC Capital, among others.	<ul style="list-style-type: none"> Through this round of financing, Center Technology will further expand its service capabilities and enhance its competitive advantages in online healthcare, medication management, and health insurance, to amplify its strengths in "doctor-patient-medicine-insurance" services.
8/10/2021	Digital health	C	20.0	MediTrust Health	Boyu Capital, Lilly Asia Ventures, and CICC	<ul style="list-style-type: none"> To fund Meditrust Health's development and deployment in innovative payments.
12/11/2021	Pharma	Strategic	15.0	Qilu Ruige	Lilly, US	<ul style="list-style-type: none"> The parties will work together closely on preclinical drug development, clinical research and commercialization in the years to come, and jointly develop innovative treatments for metabolic diseases.
1/20/2022	Pharma	A	7.6	Novotech Health	Undisclosed	<ul style="list-style-type: none"> The financing will mainly support the company's strategic M&A and technology empowerment to further consolidate its business in the region.
8/19/2021	Pharma	C	7.0	ABOGEN	Temasek, Loyal Valley Capital, and GL Ventures	<ul style="list-style-type: none"> This round will offer further support for ABOGEN to accelerate the clinical development and internationalization pace of COVID-19 mRNA vaccine products. In combination with AI and other technologies, it will help the company further enhance the R&D competitiveness of its mRNA platform, rapidly expand the clinical line, improve production capacity, and accelerate commercial deployment.
2/8/2021	Digital health	F	5.0	We Doctor	Bradbury Fund Management and CICFH Healthcare Investment, among others.	<ul style="list-style-type: none"> After this round of financing, We Doctor will advance the establishment of its new HMO and intelligent medical cloud platform "We Doctor Cloud". We Doctor Cloud is built on the open Internet, big data, and AI, and will provide governments, medical institutions, and medical and health care companies with intelligent medical cloud and medical AI solutions to improve the efficiency of traditional medical service systems.
5/20/2022	Pharma	Strategic	4.4	Sinobioway Medicine	1GLOBAL BIOMEDICAL	<ul style="list-style-type: none"> For product R&D, the enrichment of product lines, and expansion.
2/11/2021	Digital health	Pre-IPO	4.1	We Doctor	Sequoia China, Bradbury Fund Management, and others.	<ul style="list-style-type: none"> This round of financing came mainly from existing shareholders including Sequoia Capital, with strategic investments from investment institutions such as M-Capital and some large insurers.
2/10/2022	Medical service	D	4.0	Asia Medical (Hong Kong)	Country Garden Venture Capital, Primavera Capital, etc.	<ul style="list-style-type: none"> After this round of financing, the group will make more disruptive plans for service delivery to meet the needs of patients and strive to build a world-class cardiology medical group that combines clinical treatment and patient care with research and education.
8/11/2021	Digital health	D	4.0	XtalPi	OrbiMed, Hopu, 5Y Capital, Sequoia China, and Sino Biopharm, among others.	<ul style="list-style-type: none"> This round will fund XtalPi in the follow-up development of ID4, its integrated and intelligent drug R&D platform.

Top 10 M&A deals by value from 2021 to H1 2022

Announced date	Industry	Deal value (USD 100 million)	Target	Bidder	Remark
5/12/2021	Biotechnology	22.3	Shanghai Pharma (SHP)	Yunnan Baiyao Group Co. and Shanghai Tandong Enterprise Consulting Service Co.	<ul style="list-style-type: none"> Parties will collaborate to promote the high-quality and intensive development of the industry and enhance SHP's brand value. Through the interaction of products and services, SPH and Yunnan Baiyao can carry out effective strategic integration across the industry chain to offer better solutions to users.
8/25/2021	Pharma	14.79	Hugel, Inc	Consortium led by CBC Group	<ul style="list-style-type: none"> Marked the entry of CBC Group, which previously focused on medical services, into the aesthetic medical sector and demonstrated that the consumer medical boom epitomized by aesthetic medical is sweeping the investment world.
8/4/2021	Healthcare	12.08	New Frontier Healthcare	New Frontier Group and affiliated investment entities, Vivo Capital, Fosun Pharma, Warburg Pincus and its affiliates, and Goldman Sachs	<ul style="list-style-type: none"> New Frontier Healthcare signed a definitive merger agreement with Unicorn II Holdings and its affiliates to take the company private.
6/2/2022	Healthcare	11.98	Hongtian Medical	Shanghai Gaolin Yutai Health Equity Investment Partnership	<ul style="list-style-type: none"> A new effort by Taikang Life Insurance to enter the oral health segment. Combines Taikang's main business of insurance with a dental medical institution that has the advantages of specialist dental hospitals in acquiring customers. Will create a complementary regional business network with a "dental insurance + dental institutions" model.
1/28/2022	Healthcare	10	ETAO Cloud	Mountain Crest Acquisition Corp	<ul style="list-style-type: none"> Acquisition of ETAO Cloud in the US through a SPAC merger and listing.
8/18/2021	Pharma	8.94	Langdi Pharmaceutical	Shanghai Fanglang Enterprise Management Co.	<ul style="list-style-type: none"> Will promote the transformation and reform of Langdi's overall structure. Through digital transformation, Langdi will improve interaction with consumers and dealer partners to create more value.
11/26/2021	Medical devices	7.30	Ginko	Glamor Vision and Baring Private Equity Asia	<ul style="list-style-type: none"> Ginko will be privatized and become a wholly controlled subsidiary of Glamor Vision. Ginko will also further leverage Baring Private Equity Asia's international experience and expertise to expand into the international market.
5/16/2021	Pharma	6.62	HyTest	Mindray	<ul style="list-style-type: none"> Mindray will strengthen its core R&D capabilities of chemiluminescent products and raw materials and optimize its global layout throughout the upstream and downstream industrial chains. Mindray will also reinforce its independent research and production capabilities of core raw materials, increase its proportion of self-made core raw materials, and contribute to relieving bottlenecks in upstream raw material supply for in-vitro diagnostics.
10/27/2021	Biotechnology	6.27	Antejin	Fosun Pharma	<ul style="list-style-type: none"> Fosun Pharma's to enrich vaccine product line Allows Fosun Pharma to obtain a variety of pneumonia vaccines under development by Antejin, including the 13-valent pneumococcal conjugate vaccine.
11/12/2021	Pharma	5.83	HEC Changjiang	HEC Pharm	<ul style="list-style-type: none"> HEC Changjiang divested its pharmaceutical-related business and began to focus on other tracks including new electronic materials.

Appendix I: Deal inclusion criteria

Mergermarket M&A deal database inclusion/exclusion criteria

Deal size

Transactions with a deal value greater than or equal to USD 5 million are included, except for some minority stake acquisitions where a higher threshold applies (see point 2.03). If the consideration is undisclosed, deals are included on the basis of a reported or estimated deal value greater than or equal to USD 5 million.

If the deal value is not disclosed and cannot be confirmed to be greater than or equal to USD 5 million, the deal is included if the target's turnover/revenue is greater than or equal to USD 10 million.

If neither the deal value nor the target revenue is disclosed, Mergermarket will use other indicators to determine inclusion, including but not limited to:

- Number of employees of the target company – typically 100 employees is used as a base, though this number will vary depending on geography;
- Assets under management exceeding USD 200 million for asset management firms;
- Value of assets/deposits exceeding USD 50 million for banks.

Stake acquisitions

Partial stake acquisitions where the stake acquired is greater than or equal to 30% of the entire share capital, or 10% where the target is based in Asia-Pacific, and the deal value is at least USD 5 million, the deal will be included.

Where the stake acquired is less than 30%, or 10% where the target is based in Asia-Pacific, the deal will only be included if the deal value is at least:

- USD 100 million provided there is also evidence of an advisory mandate
- USD 500 million in the absence of evidence of an advisory mandate

Deal types included

- Acquisitions of 100% of another entity.
- Acquisitions of business units, divisions, product lines or other operations of another entity.
- Partial stake acquisitions where the stake acquired is greater than or equal to 30% of the entire share capital, or 10% where the target is based in Asia-Pacific, and the deal value is at least USD 5 million, the deal will be included.

Where the stake acquired is less than 30%, or 10% where the target is based in Asia-Pacific, the deal will only be included if the deal value is at least:

- USD 100 million provided there is also evidence of an advisory mandate;
- USD 500 million in the absence of evidence of an advisory mandate.

- Mergers.
- Joint ventures where at least one party is injecting an operational asset other than cash.
- Spin-offs and split-offs.
- Auctions but only the winning bid, where a binding agreement is in place, is recorded.
- Reverse takeovers.
- Debt-for-equity swaps.
- Preferred shares exhibiting at least one of the following features:
 - Voting rights
 - Board seats
 - Convertible features
- Property transactions where a property company, with the exception of a property holdco, is acquired or merged with another entity.
- Privatizations.
- Pharmaceutical rights and brands.
- Natural resource transactions comprising oil & gas wells or blocks, mining properties, timber tracts, wind farms, solar energy farms, tidal or hydro power and similar alternative energy transactions.

Deal types excluded

- Joint ventures where the only asset contributed is cash.
- Property/real estate transactions restricted to land, buildings, portfolio's or sale and leaseback agreements.
- Equity carve-outs.
- Transactions involving undeveloped oil and gas fields and undeveloped mines.
- Acquisitions of brands, rights and/or licenses including Government-awarded telecom spectrum licenses except for pharmaceutical rights or brands.
- Individual assets (i.e. dry bulk vessels) and asset portfolios.
- On-sales, subsequent sales and back-to-back transactions which are inter-conditional.
- Share buybacks in the form of open market purchases or tender offers.

- Equity placements where shareholders' interests in total remain the same.
- Internal restructurings where no change in economic ownership is demonstrated.
- Collapsing dual listings and share unification schemes.

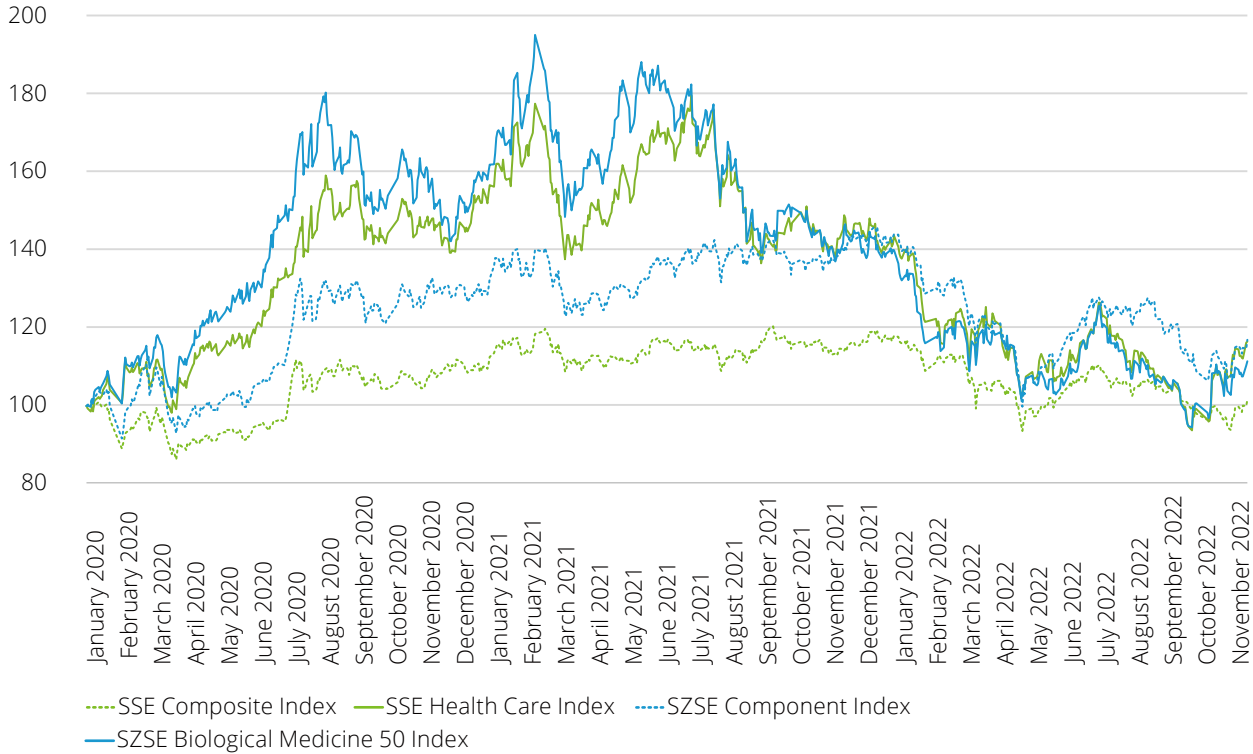
Scope of fundraising events in the primary market:

The data on fundraising events in the primary market comes from CVSource. Fundraising events in the primary market refer to transactions in which the target company obtains funds after being invested in by relevant institutions, with non-listed companies involved in general. The investment stage may range from the seed round to the pre-IPO round. The financing scale generally reflects the actual amount publicly disclosed by the market, and in cases where the actual amount is not disclosed, it will indicate the range value of investment or will be displayed as undisclosed.



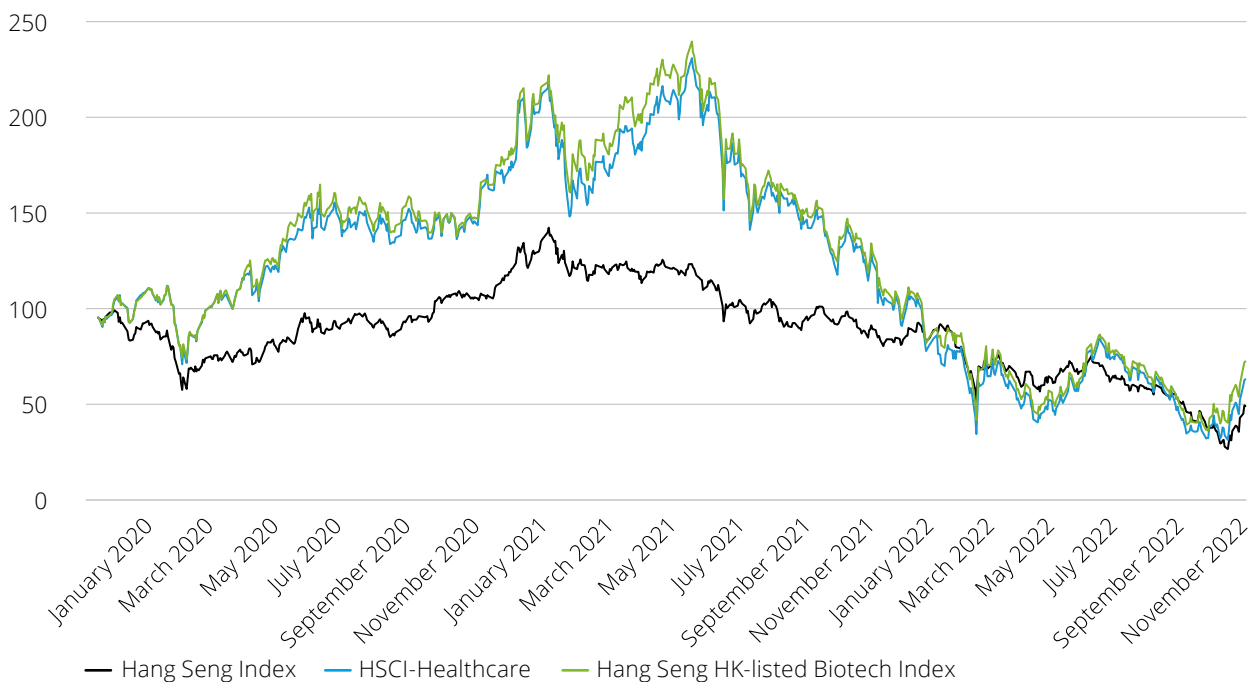
Appendix II: Changes in secondary market indexes

Changes in A-share indexes



Sources: Shanghai Stock Exchange, Shenzhen Stock Exchange, Wind, Deloitte Research

Changes in H-share indexes



Sources: Hong Kong Stock Exchange, Wind, Deloitte Research

Appendix III: Performance of pre-revenue listed LSHC companies (H shares and A shares)

Stock code	Company	IPO date	IPO market	Major sector	Closing price growth rate		Average price in 2021 (RMB)	Average price in 2022 (RMB)	Highest price in 2022 (RMB)	Lowest price in 2022 (RMB)	Market cap. on IPO date (Min RMB)	Market cap. on 15 Nov. 2022 (Min RMB)	Market cap. change	The % of R&D expense in net cash flow (absolute rate) in operating activities in mid-2022
					IPO date	15/11/2022								
9877.HK	Jenscare Scientific	10/10/2022	HKEx	Interventional therapy	0.9%	9.5%	N/A	25.6	33.4	23.6	10,658.0	11,489.8	7.8%	145.7%
688428.SH	Innocare Pharma	21/09/2022	SSE STAR	Biologicals	-12.8%	34.0%	N/A	11.6	15.9	8.7	14,558.5	20,047.4	37.7%	143.8%
2315.HK	Biocytogen Pharmaceuticals	01/09/2022	HKEx	Biologicals	-1.1%	1.1%	N/A	22.3	26.1	20.7	9,043.9	9,546.8	5.6%	294.9%
688351.SH	MicroPort EP Medtech	31/08/2022	SSE STAR	Interventional therapy	-15.2%	43.4%	N/A	18.9	30.4	11.7	6,188.4	10,456.7	69.0%	421.0%
688373.SH	MicRx Pharmaceutical	05/08/2022	SSE STAR	Biologicals	-16.4%	-28.2%	N/A	9.4	14.2	6.6	7,128.7	6,119.7	-14.2%	71.5%
688382.SH	InventisBio	25/07/2022	SSE STAR	Small molecule novel drugs	9.2%	18.9%	N/A	14.3	18.1	10.1	8,791.8	9,573.8	8.9%	122.5%
2297.HK	Rainmed Medical	08/07/2022	HKEx	Interventional therapy	-5.7%	-62.5%	N/A	4.0	5.2	1.8	5,269.6	2,203.7	-58.2%	57.7%
688302.SH	Hinova Pharmaceuticals	12/04/2022	SSE STAR	Small molecule novel drugs	-26.6%	27.1%	N/A	38.7	59.6	28.2	2,980.4	5,158.7	73.1%	81.8%
2179.HK	Recbio Technology	31/03/2022	HKEx	mRNA vaccine	1.0%	-8.8%	N/A	19.8	23.0	15.3	9,811.1	9,895.1	0.9%	148.0%
688197.SH	Shouyao	23/03/2022	SSE STAR	Biologicals	3.6%	-5.6%	N/A	25.1	36.0	17.5	4,775.4	4,351.5	-8.9%	182.8%
2157.HK	Lepu Biopharma	23/02/2022	HKEx	Biologicals	0.1%	38.1%	N/A	7.8	28.0	5.1	9,609.1	14,688.3	52.9%	119.7%
688062.SH	Mabwell Bioscience	18/01/2022	SSE STAR	Biologicals	-23.4%	-49.9%	N/A	21.1	33.8	13.0	9,790.2	6,409.6	-34.5%	119.9%
688176.SH	Yahong Meditech	07/01/2022	SSE STAR	Biologicals	-12.0%	-39.0%	N/A	15.0	20.0	10.0	10,032.0	6,954.0	-30.7%	97.4%
2257.HK	Sirnaomics	30/12/2021	HKEx	RNA therapy	18.2%	-17.8%	58.3	60.8	82.6	48.6	5,601.7	4,284.4	-23.5%	70.8%
2185.HK	Bio-Heart Biological	23/12/2021	HKEx	Interventional therapy	6.5%	162.2%	17.3	44.6	65.6	21.7	4,001.3	10,850.6	171.2%	203.8%
688235.SH	BeiGene	15/12/2021	SSE STAR	Biologicals	-9.0%	-25.4%	157.7	109.8	144.5	82.0	171,990.9	155,238.2	-9.7%	150.3%
1228.HK	CANbridge Pharmaceuticals	10/12/2021	HKEx	Biologicals	-9.2%	-72.7%	7.5	5.1	7.3	1.7	3,084.2	1,021.7	-66.9%	107.5%
688192.SH	Dizal Pharmaceutical	10/12/2021	SSE STAR	Biologicals	-8.7%	-17.7%	40.1	31.5	43.4	19.0	16,440.0	14,966.9	-9.0%	117.6%
2197.HK	Clover Biopharmaceuticals	05/11/2021	HKEx	Biologicals	-3.0%	-70.9%	10.3	3.3	11.1	1.5	12,357.0	4,077.1	-67.0%	153.1%
2251.HK	Airdoc Technology	05/11/2021	HKEx	AI Image diagnosis	0.6%	-78.0%	53.9	17.0	35.1	8.9	5,789.2	1,386.7	-76.0%	58.2%
2252.HK	Microport Medbot	02/11/2021	HKEx	Medical equipment	15.1%	-27.4%	43.8	25.1	49.2	14.9	35,893.9	24,894.5	-30.6%	117.0%
2235.HK	MicroTech Medical	19/10/2021	HKEx	Medical monitoring	-1.6%	-80.6%	25.0	8.7	19.6	5.1	10,680.2	2,295.5	-78.5%	92.9%
2256.HK	Abbisko	13/10/2021	HKEx	Biologicals	9.7%	-69.1%	9.6	4.4	8.1	2.4	7,209.2	2,200.9	-69.5%	124.6%
6628.HK	Transcenta	29/09/2021	HKEx	Biologicals	1.8%	-70.6%	10.9	4.6	8.3	1.8	4,898.2	1,529.3	-68.8%	103.3%

Stock code	Company	IPO date	IPO market	Major sector	Closing price growth rate		Average price in 2021 (RMB)	Average price in 2022 (RMB)	Highest price in 2022 (RMB)	Lowest price in 2022 (RMB)	Market cap. on IPO date (Mln RMB)	Market cap. on 15 Nov. 2022 (Mln RMB)	Market cap. change	The % of R&D expense in net cash flow (absolute rate) in operating activities in mid-2022
					IPO date	15/11/2022								
2216.HK	Broncus	24/09/2021	HKEx	Interventional therapy	-16.7%	-88.4%	11.8	2.4	7.4	1.3	6,541.6	984.5	-85.0%	54.2%
688091.SH	Yizhong Pharmaceutical	09/09/2021	SSE STAR	Biologicals	1.9%	60.1%	46.3	110.4	198.9	44.4	5,183.1	11,079.4	113.8%	8.7%
6669.HK	Acotec Scientific	24/08/2021	HKEx	Interventional therapy	-3.9%	-56.6%	13.3	6.5	9.8	3.4	4,587.1	2,238.8	-51.2%	210.0%
6609.HK	HeartCare Medical	20/08/2021	HKEx	Interventional therapy	-8.6%	-77.3%	100.7	36.6	86.3	23.1	4,179.3	1,116.7	-73.3%	42.8%
2137.HK	Brii Biosciences	13/07/2021	HKEx	Biologicals	7.2%	-56.7%	26.5	8.8	28.4	4.3	13,514.1	6,047.4	-55.3%	96.1%
2162.HK	Keymed Biosciences	08/07/2021	HKEx	Biologicals	-12.8%	-31.3%	52.4	27.6	53.1	13.7	15,349.0	13,473.6	-12.2%	99.2%
2190.HK	Zylox-Tonbridge Medical	05/07/2021	HKEx	Interventional therapy	9.1%	-81.5%	43.1	9.8	21.6	7.7	16,163.0	3,040.8	-81.2%	187.5%
2171.HK	Carsgen Therapeutics	18/06/2021	HKEx	Cell immunotherapy	10.9%	-44.5%	28.3	12.9	24.7	8.3	14,108.7	7,691.5	-45.5%	101.9%
6622.HK	Zhaoke Ophthalmology	29/04/2021	HKEx	Novel Drugs	-7.7%	-86.3%	9.4	3.0	4.8	1.9	6,389.2	1,037.3	-83.8%	74.3%
6606.HK	New Horizon Health	18/02/2021	HKEx	IVD	10.5%	-71.5%	50.0	18.3	28.1	11.5	29,225.6	8,364.4	-71.4%	17.2%
2170.HK	Basecare Medical	08/02/2021	HKEx	IVD	-7.7%	-88.6%	21.3	4.0	6.3	2.3	6,162.4	840.6	-86.4%	49.7%
2160.HK	Microport Cardioflow Medtech	04/02/2021	HKEx	Medical devices	-12.5%	-86.5%	9.8	2.5	3.5	1.7	37,114.6	6,273.4	-83.1%	96.8%
1167.HK	Jacobio Pharmaceuticals	21/12/2020	HKEx	Small molecule novel drugs	-9.8%	-68.8%	16.4	5.3	11.9	3.0	9,256.1	3,452.4	-62.7%	157.9%
2142.HK	Harbour Biomed	10/12/2020	HKEx	Biological antibody	-7.7%	-85.3%	7.5	3.0	6.5	0.8	7,147.1	1,207.6	-83.1%	200.2%
688578.SH	Allist Pharmaceuticals	02/12/2020	SSE STAR	Small molecule novel drugs	-8.2%	-45.3%	30.9	22.3	30.6	14.8	17,347.5	10,341.0	-40.4%	1490.6%
6996.HK	Antengene	20/11/2020	HKEx	Biologicals	-6.7%	-77.8%	13.2	4.5	8.2	2.6	10,364.0	2,589.6	-75.0%	69.5%
9995.HK	Remegen	09/11/2020	HKEx	Biologicals	15.2%	-13.0%	86.6	39.2	62.6	21.2	28,475.7	36,438.8	28.0%	63.9%
2126.HK	JW Therapeutics	03/11/2020	HKEx	Cell immunotherapy	-9.7%	-80.4%	18.9	6.7	11.4	2.5	7,148.5	1,761.8	-75.4%	52.8%
688221.SH	Frontier Biotechnologies	28/10/2020	SSE STAR	Biologicals	2.7%	-42.9%	19.7	17.7	27.8	11.9	10,760.4	6,229.2	-42.1%	77.0%
1952.HK	Everest Medicines	09/10/2020	HKEx	Biologicals	3.1%	-82.7%	52.7	14.3	38.2	5.5	18,054.1	3,374.0	-81.3%	67.0%
6998.HK	Genor Biopharma	07/10/2020	HKEx	mAb/Fc-based fusion Protein	-4.3%	-91.6%	12.4	3.4	5.9	1.4	11,815.7	1,116.4	-90.6%	94.5%
9688.HK	Zai Lab	28/09/2020	HKEx	Biologicals	-0.6%	-95.1%	847.4	30.4	416.4	15.5	46,166.4	26,218.6	-43.2%	90.8%
688185.SH	Cansino Biologics	13/08/2020	SSE STAR	Vaccine	-16.4%	-50.4%	412.5	203.1	315.0	110.7	68,745.6	40,808.9	-40.6%	26.7%
688180.SH	Junshi Biosciences	15/07/2020	SSE STAR	Biological antibody	-30.1%	-68.1%	67.8	78.2	131.4	44.5	112,976.5	54,705.3	-51.6%	231.8%

Stock code	Company	IPO date	IPO market	Major sector	Closing price growth rate		Average price in 2021 (RMB)	Average price in 2022 (RMB)	Highest price in 2022 (RMB)	Lowest price in 2022 (RMB)	Market cap. on IPO date (Mln RMB)	Market cap. on 15 Nov. 2022 (Mln RMB)	Market cap. change	The % of R&D expense in net cash flow (absolute rate) in operating activities in mid-2022
					IPO date	15/11/2022								
1477.HK	Ocumension Therapeutics	10/07/2020	HKEx	Biologicals	-14.0%	-77.5%	20.1	9.3	14.7	6.4	19,208.6	5,853.1	-69.5%	198.6%
6978.HK	Immunotech Biopharm	10/07/2020	HKEx	Cell immunotherapy	15.5%	-59.3%	13.8	5.5	14.3	2.8	6,985.2	2,520.1	-63.9%	112.9%
688277.SH	Tinavi Medical	07/07/2020	SSE STAR	Robotic surgery	22.9%	-79.5%	28.5	15.5	26.8	11.2	35,986.1	6,037.4	-83.2%	62.1%
688520.SH	Sinocelltech	22/06/2020	SSE STAR	Biological antibody & vaccine	-14.0%	-0.9%	53.8	57.9	91.9	40.1	31,810.0	37,510.6	17.9%	151.1%
9939.HK	Kintor Pharmaceutical	22/05/2020	HKEx	Small molecule biologicals	6.7%	-27.0%	38.7	13.6	37.5	5.7	7,265.2	5,382.9	-25.9%	65.1%
9996.HK	Peijia Medical	15/05/2020	HKEx	Interventional therapy	-3.7%	-69.9%	22.3	6.4	11.1	4.5	14,402.4	4,906.4	-65.9%	39.4%
9926.HK	Akeso	24/04/2020	HKEx	Biological antibody	3.4%	37.2%	40.8	19.2	31.6	9.8	16,939.1	24,374.0	43.9%	102.5%
9969.HK	Innocare Pharma	23/03/2020	HKEx	Biologicals	4.4%	28.3%	17.7	9.6	12.8	6.5	11,226.4	20,047.4	78.6%	101.8%
688177.SH	Bio-Thera	21/02/2020	SSE STAR	Biological antibody	0.3%	-59.7%	27.7	22.3	26.9	17.1	24,927.6	10,008.3	-59.9%	225.2%
688266.SH	Zelgen Biopharmaceuticals	23/01/2020	SSE STAR	Biologicals	10.5%	-33.8%	66.3	37.3	59.4	21.7	17,901.6	10,723.2	-40.1%	160.7%
9966.HK	Alphamab Oncology	12/12/2019	HKEx	Biologicals	3.8%	-35.9%	15.5	6.8	11.4	5.0	10,894.1	7,030.5	-35.5%	148.2%
2500.HK	Venus Medtech	10/12/2019	HKEx	Interventional therapy	7.6%	-67.5%	46.7	13.2	25.2	7.4	15,202.0	5,151.9	-66.1%	83.4%
3681.HK	Sinomab Bioscience	12/11/2019	HKEx	Biological antibody	-17.8%	-73.3%	3.3	1.5	2.4	0.7	5,397.5	1,763.2	-67.3%	56.4%
1875.HK	TOT BIOPHARM	08/11/2019	HKEx	ADC	-2.6%	-61.9%	3.6	2.5	3.5	1.9	3,190.0	1,684.7	-47.2%	289.9%
6855.HK	Ascentage Pharma	28/10/2019	HKEx	Small molecule biologicals	-29.1%	-63.4%	34.0	14.8	23.5	9.5	7,029.0	4,607.4	-34.5%	101.9%
2696.HK	Henlius Biotech	25/09/2019	HKEx	Biologicals	4.2%	-77.0%	29.5	15.2	20.7	9.2	24,050.7	5,323.5	-77.9%	518.4%
2181.HK	Mabpharm	31/05/2019	HKEx	Biological antibody	-19.3%	-74.3%	0.9	0.6	1.0	0.3	4,387.0	1,426.8	-67.5%	706.1%
6185.HK	Cansino Biologics	28/03/2019	HKEx	Vaccine	13.8%	285.9%	238.1	80.8	151.3	36.3	6,488.0	40,808.9	529.0%	26.6%
2616.HK	CStone Pharmaceuticals	26/02/2019	HKEx	Biologicals	-3.5%	-68.8%	10.5	4.3	7.1	3.0	10,794.9	4,450.7	-58.8%	60.1%
1877.HK	Junshi Biosciences	24/12/2018	HKEx	Biological antibody	1.1%	48.9%	51.3	38.4	58.8	19.2	15,094.4	54,705.3	262.4%	232.2%
1801.HK	Innovent Biologics	31/10/2018	HKEx	Biologicals	15.9%	144.1%	64.8	26.1	40.5	15.4	16,457.2	48,058.6	192.0%	145.6%
2552.HK	Hua Medicine	14/09/2018	HKEx	Biologicals	0.0%	-62.8%	3.9	2.9	4.4	1.7	7,586.7	2,921.2	-61.5%	62.0%
6160.HK	BeiGene	08/08/2018	HKEx	Biologicals	-0.9%	18.3%	172.2	87.8	134.7	63.3	69,356.2	155,238.2	123.8%	124.6%
1672.HK	Asclepis Pharma	01/08/2018	HKEx	Biologicals	-5.4%	-77.7%	2.7	3.9	5.9	1.8	13,651.4	3,223.8	-76.4%	175.8%

Sources:

1. The RMB amount was calculated using annual average instead of the average after listing

2. The annual average price is calculated as Annual Average Price = [period trading value (thousand RMB)*1000] / [period trading volume (lot)*1000]

Appendix IV: Performance of the top 30 listed LSHC companies by market capitalization

Rank	Stock code	Company	Market cap. on 15 Nov 2022 (Mln RMB)	IPO market	Major sector	Closing price growth rate		Average price in 2021 (RMB)	Average price in 2022 (RMB)	Highest price in 2022 (RMB)	Lowest price in 2022 (RMB)	Market cap. on IPO date (Mln RMB)	Market cap. change
						IPO date	15/11/2022						
1	300760.SZ	Mindray Bio-Medical	384,271.18	SZSE ChiNext	Medical devices	20.0%	441.2%	395.0	311.1	354.9	255.9	85,426.6	349.8%
2	600276.SH	Hengrui Pharmaceuticals	256,691.05	SSE Main Board	Novel chemicals	3.1%	49.7%	66.7	36.9	51.1	27.7	3,679.9	6875.4%
3	2359.HK	Wuxi Apptec	254,579.99	HKEx	CDMO	1.5%	28.4%	136.7	81.9	111.2	53.6	91,386.5	178.6%
4	2269.HK	Wuxi Biologics	204,754.29	HKEx	CDMO	13.0%	116.0%	90.7	50.8	75.7	32.5	27,915.1	633.5%
5	300015.SZ	Aier Eye Hospital	197,497.98	SZSE ChiNext	Ophthalmology specialized hospital	6.2%	-43.7%	59.4	32.1	44.8	24.7	6,928.7	2750.5%
6	6618.HK	JD Health	183,560.26	HKEx	Pharma e-commerce	16.4%	-31.9%	80.5	44.5	57.6	25.9	289,891.8	-36.7%
7	688271.SH	United Imaging Healthcare	161,007.50	SSE STAR	Medical imaging	6.5%	14.8%	N/A	185.1	214.9	157.0	149,353.9	7.8%
8	600436.SH	Pientzhuang Pharmaceutical	159,667.90	SSE Main Board	TCM	0.6%	1565.5%	369.4	311.0	432.3	228.0	2,237.2	7037.0%
9	6160.HK	BeiGene	155,238.18	HKEx	Biologicals	-0.9%	18.3%	172.2	88.0	131.0	63.7	69,356.2	123.8%
10	300122.SZ	Zhifei Biological	153,600.00	SZSE ChiNext	Vaccine	-10.1%	123.9%	167.8	105.2	141.4	78.2	15,420.0	896.1%
11	603392.SH	Wantai Biological	134,796.14	SSE Main Board	IVD & vaccine	0.0%	1080.7%	250.0	158.9	290.0	110.3	5,463.4	2367.3%
12	1093.HK	CSPC Pharmaceutical	109,163.30	HKEx	Biologicals	0.0%	918.0%	7.9	7.3	9.1	6.2	N/A	N/A
13	300896.SZ	Imeik Technology	104,069.16	SZSE ChiNext	Aesthetic medical	6.3%	50.3%	624.9	499.5	618.4	408.8	40,880.0	154.6%
14	000538.SZ	Yunnan Baiyao	102,780.54	SZSE Main Board	Distribution & retail	21.8%	572.9%	114.4	65.9	109.5	51.1	828.0	12313.1%
15	2196.HK	Fosun Pharmaceutical	87,160.95	HKEx	Pharma commercialization	-2.2%	121.1%	41.7	25.6	35.6	16.0	22,406.4	289.0%
16	3692.HK	Hansoh Pharmaceutical	81,531.25	HKEx	Novel drugs	19.6%	-6.0%	23.7	12.3	15.6	10.1	97,930.3	-16.7%
17	3347.HK	Tigermed	80,551.89	HKEx	CRO	-4.8%	-37.6%	126.1	67.0	89.2	47.2	91,565.1	-12.0%
18	1177.HK	Sino Biopharmaceutical	79,121.62	HKEx	Novel drugs	-13.1%	260.0%	6.2	3.9	5.1	3.3	359.8	21887.5%
19	3759.HK	Pharmaron	76,388.39	HKEx	CRO	-2.8%	5.4%	131.4	56.0	98.1	24.1	37,609.9	103.1%
20	000963.SZ	Huadong Medicine	75,263.94	SZSE Main Board	Pharma commercialization	26.5%	163.3%	39.3	39.8	49.0	29.4	3,917.8	1821.1%
21	000661.SZ	Changchun High-Tech Industries	72,194.01	SZSE Main Board	Biologicals & TCM	19.5%	1053.1%	353.2	183.5	272.2	135.2	1,269.2	5588.4%
22	0241.HK	Alibaba Health	69,494.08	HKEx	Pharma e-commerce	N/A	N/A	13.3	4.0	6.0	2.8	N/A	N/A
23	300142.SZ	Walvax Biotechnology	68,335.63	SZSE ChiNext	Vaccine	-9.1%	-71.6%	60.6	48.5	60.4	35.8	13,635.0	401.2%
24	600085.SH	Tongrentang	66,063.72	SSE Main Board	TCM	1.3%	183.4%	34.2	46.3	56.3	34.4	3,444.0	1818.2%
25	002603.SZ	Yiling Pharmaceutical	63,085.83	SZSE Main Board	TCM	9.0%	-7.9%	22.4	27.9	46.3	18.8	18,989.0	232.2%
26	2607.HK	Shanghai Pharmaceuticals	63,030.09	HKEx	Pharma commercialization	-1.1%	-45.1%	12.7	11.4	13.5	9.5	51,339.1	22.8%
27	002001.SZ	NHU Company	61,416.33	SZSE Main Board	API	-10.9%	-29.3%	32.4	25.5	36.1	17.8	2,853.9	2052.0%
28	000999.SZ	China Resources Sanjiu Medical & Pharmaceutical	58,875.77	SZSE Main Board	OTC	8.7%	154.0%	26.4	40.9	59.6	33.2	19,201.5	206.6%
29	6821.HK	Asymchem Laboratories	57,012.97	HKEx	CDMO	-4.6%	-71.8%	290.8	134.7	246.7	75.3	120,557.1	-52.7%
30	1877.HK	Junshi Biosciences	54,705.34	HKEx	Biological antibody	1.1%	48.9%	51.3	38.3	54.9	19.8	15,094.4	262.4%

Sources:

1. The RMB amount was calculated using annual average instead of the average after listing
2. The annual average price is calculated is Annual Average Price = [period trading value (thousand RMB)*1000] / [period trading volume (lot)*1000]

Appendix V: Performance of LSHC companies listed in 2022 (H shares and A shares)

Stock code	Company	IPO date	IPO market	Major sector	Closing price growth rate		Average price in 2022 (RMB)	Highest price in 2022 (RMB)	Lowest price in 2022 (RMB)	Market cap. on IPO date (Mln RMB)	Market cap. on 15 Nov 2022 (Mln RMB)	Market cap. change
					IPO date	15/11/2022						
2291.HK	Lepu Scientech Medical	08/11/2022	HKEx	Interventional therapy	-2.2%	-7.6%	24.7	26.8	25.4	9,290.3	8,584.4	-7.6%
301267.SZ	Huaxia Eye Hospital	07/11/2022	SZSE ChiNext	Ophthalmology specialized hospital	0.1%	-6.4%	67.6	71.9	63.6	39,256.0	36,702.4	-6.5%
2367.HK	Giant Biogene	04/11/2022	HKEx	Skin care	2.7%	17.7%	25.7	32.3	24.7	24,471.5	27,266.7	11.4%
301230.SZ	Pharma Resources	01/11/2022	SZSE ChiNext	CDMO	6.7%	16.9%	52.6	58.4	48.3	3,938.2	4,314.1	9.5%
301367.SZ	Bmc Medical	01/11/2022	SZSE ChiNext	Medical devices	26.1%	37.4%	283.9	325.0	272.2	18,560.0	20,224.0	9.0%
688426.SH	Cowin Biotech	25/10/2022	SSE STAR	Molecular diagnosis	1.5%	15.4%	47.4	53.2	42.7	4,063.7	4,618.9	13.7%
835892.BJ	Zhongke Meiling Cryogenics	18/10/2022	BSE	Medical devices	2.3%	-15.7%	15.9	17.3	4.0	1,584.5	1,305.9	-17.6%
301363.SZ	Mehow Innovative	12/10/2022	SZSE ChiNext	Medical devices	4.3%	35.1%	43.6	49.9	36.4	15,054.6	19,499.3	29.5%
688073.SH	Bide Pharmatech	11/10/2022	SSE STAR	Pharmaceutical intermediates	-6.7%	30.7%	83.7	97.7	67.4	4,376.0	6,126.8	40.0%
9877.HK	Jenscare Scientific	10/10/2022	HKEx	Interventional therapy	0.9%	9.5%	25.6	33.4	23.6	10,658.0	11,489.8	7.8%
6660.HK	Aim Vaccine	06/10/2022	HKEx	Vaccine	11.1%	55.7%	20.4	32.9	15.1	18,227.9	25,411.2	39.4%
688137.SH	Novoprotein Scientific	29/09/2022	SSE STAR	IVD & mRNA vaccine	-7.9%	22.7%	87.3	115.0	65.9	5,298.9	7,060.4	33.2%
688428.SH	Innocare Pharma	21/09/2022	SSE STAR	Biologicals	-12.8%	34.0%	11.6	15.9	8.7	14,558.5	20,047.4	37.7%
301331.SZ	Enwei Pharmaceutical	21/09/2022	SZSE ChiNext	Chemicals & TCM	4.1%	20.5%	47.2	57.3	38.1	3,067.2	3,550.4	15.8%
9886.HK	Dingdang Health	14/09/2022	HKEx	Digital health	-2.8%	-3.9%	10.2	11.3	10.5	14,175.0	14,296.8	0.9%
688114.SH	Mgi Tech	09/09/2022	SSE STAR	Medical devices	-6.5%	21.3%	115.5	140.6	97.4	41,311.0	53,788.9	30.2%
688293.SH	Opm Biosciences	02/09/2022	SSE STAR	CDMO	1.8%	2.8%	121.1	132.5	101.6	10,431.2	10,533.7	1.0%
2315.HK	Biocytogen Pharmaceuticals	01/09/2022	HKEx	Biologicals	-1.1%	1.1%	22.3	26.1	20.7	9,043.9	9,546.8	5.6%
688351.SH	MicroPort EP Medtech	31/08/2022	SSE STAR	Interventional therapy	-15.2%	43.4%	18.9	30.4	11.7	6,188.4	10,456.7	69.0%
688247.SH	Sinotherapeutics	25/08/2022	SSE STAR	CDMO	-13.9%	-17.0%	12.3	13.7	9.9	6,165.4	5,943.3	-3.6%
688271.SH	United Imaging Healthcare	22/08/2022	SSE STAR	Medical imaging	6.5%	14.8%	185.1	214.9	157.0	149,353.9	161,007.5	7.8%
688203.SH	Hisun Biomaterials	16/08/2022	SSE STAR	Biodegradable material - PLA	-9.3%	-16.2%	18.7	20.9	13.9	4,225.8	3,905.6	-7.6%
688273.SH	Medlander Medical	11/08/2022	SSE STAR	Medical devices	3.8%	-7.9%	38.7	44.1	28.4	4,407.0	3,909.0	-11.3%
688373.SH	MicuRx Pharmaceutical	05/08/2022	SSE STAR	Biologicals	-16.4%	-28.2%	9.4	14.2	6.6	7,128.7	6,119.7	-14.2%
301333.SZ	R&G Pharmastudies	02/08/2022	SZSE ChiNext	CRO	14.1%	-3.4%	82.5	98.7	64.3	5,400.6	4,573.2	-15.3%
688253.SH	Innovita Biological	28/07/2022	SSE STAR	POCT diagnosis	-1.3%	-19.6%	28.1	33.0	20.9	4,490.0	3,657.3	-18.5%
688382.SH	InventisBio	25/07/2022	SSE STAR	Small molecule novel drugs	9.2%	18.9%	14.3	18.1	10.1	8,791.8	9,573.8	8.9%
2172.HK	MicroPort NeuroTech	15/07/2022	HKEx	Interventional therapy	-0.4%	-11.1%	20.4	22.8	17.8	12,325.7	11,492.6	-6.8%
603235.SH	Tianxin Pharmaceutical	12/07/2022	SSE Main Board	Vitamin	20.0%	-28.2%	35.2	53.1	28.5	23,250.5	13,917.0	-40.1%
2297.HK	Rainmed Medical	08/07/2022	HKEx	Interventional therapy	-5.7%	-62.5%	4.0	5.2	0.0	5,269.6	2,203.7	-58.2%
9955.HK	ClouDr Group	06/07/2022	HKEx	Digital health	-7.5%	-49.6%	17.8	24.3	12.2	14,186.4	8,102.7	-42.9%
301234.SZ	Wuzhou Medical	05/07/2022	SZSE ChiNext	Medical consumable	-8.0%	-33.3%	35.9	46.9	28.9	3,191.9	2,312.0	-27.6%

Stock code	Company	IPO date	IPO market	Major sector	Closing price growth rate		Average price in 2022 (RMB)	Highest price in 2022 (RMB)	Lowest price in 2022 (RMB)	Market cap. on IPO date (Mln RMB)	Market cap. on 15 Nov 2022 (Mln RMB)	Market cap. change
					IPO date	15/11/2022						
301239.SZ	Bright Eye Hospital	05/07/2022	SZSE ChiNext	Ophthalmology specialized hospital	5.2%	15.2%	62.0	79.8	48.3	7,887.9	8,633.0	9.4%
601089.SH	Foyou Pharma	30/06/2022	SSE Main Board	Generics & medical devices	20.0%	1.1%	17.6	22.1	14.5	10,104.0	8,515.2	-15.7%
6667.HK	Mega Genomics	22/06/2022	HKEx	Gene test	-7.6%	-42.5%	13.7	15.4	9.6	3,681.4	2,407.8	-34.6%
2325.HK	Yunkang Group	18/05/2022	HKEx	Medical operation	7.7%	88.1%	11.9	16.4	7.3	4,476.8	8,284.6	85.1%
301257.SZ	Smo Clinplus	17/05/2022	SZSE ChiNext	SMO	5.1%	-19.5%	56.8	74.6	40.1	4,478.4	3,482.9	-22.2%
688046.SH	GemPharmatech	25/04/2022	SSE STAR	Laboratory animals	-7.5%	72.0%	26.0	34.8	15.9	7,585.0	14,099.9	85.9%
688302.SH	Hinova Pharmaceuticals	12/04/2022	SSE STAR	Small molecule novel drugs	-26.6%	27.1%	38.7	59.6	28.2	2,980.4	5,158.7	73.1%
301097.SZ	Tianyi Medical	07/04/2022	SZSE ChiNext	Medical polymers	26.7%	28.7%	52.9	69.9	35.6	3,733.1	3,790.3	1.5%
2179.HK	Recbio Technology	31/03/2022	HKEx	mRNA vaccine	1.0%	-8.8%	19.8	23.0	15.3	9,811.1	9,895.1	0.9%
688331.SH	Remegen	31/03/2022	SSE STAR	Biologicals	-11.2%	68.3%	49.8	87.1	29.1	21,634.7	36,438.8	68.4%
688193.SH	Render Biotechnology	30/03/2022	SSE STAR	RNA diagnosis	-4.8%	-20.2%	56.8	64.8	45.0	2,590.4	2,170.4	-16.2%
301258.SZ	Fushilai Pharmaceutical	29/03/2022	SZSE ChiNext	API & Nutrition	7.5%	-25.5%	45.6	66.5	38.3	6,097.9	4,225.1	-30.7%
301263.SZ	Taienkang Pharmaceutical	29/03/2022	SZSE ChiNext	Pharma commercialization	12.7%	4.1%	28.9	37.4	21.3	8,259.4	7,630.6	-7.6%
688197.SH	Shouyao	23/03/2022	SSE STAR	Biologicals	3.6%	-5.6%	25.1	36.0	17.5	4,775.4	4,351.5	-8.9%
301103.SZ	He Eye Hospital	22/03/2022	SZSE ChiNext	Ophthalmology specialized hospital	-2.9%	-40.8%	36.1	49.5	26.0	6,017.2	4,770.8	-20.7%
688238.SH	Obio Technology	22/03/2022	SSE STAR	CDMO	5.8%	19.1%	23.2	35.0	16.0	10,805.8	12,162.0	12.6%
6639.HK	Arrail Group	22/03/2022	HKEx	Specialized hospital	-5.5%	-49.5%	7.9	11.7	5.5	6,528.4	3,857.0	-40.9%
688163.SH	Serum Bio-Technology	11/03/2022	SSE STAR	Antitoxin/antiserum	10.6%	-51.1%	31.7	55.3	19.1	5,984.6	2,647.1	-55.8%
2157.HK	Lepu Biopharma	23/02/2022	HKEx	Biologicals	0.1%	38.1%	7.8	28.0	5.1	9,609.1	14,688.3	52.9%
301130.SZ	Xidian Pharmaceutical	23/02/2022	SZSE ChiNext	API	3.7%	-33.9%	48.0	82.8	28.9	4,606.6	2,938.8	-36.2%
301207.SZ	Hualan Biological	18/02/2022	SZSE ChiNext	Vaccine	-6.3%	-32.2%	53.0	70.3	38.9	28,120.7	20,344.5	-27.7%
1406.HK	Clarity Medical	18/02/2022	HKEx	Specialized hospital	-3.1%	-31.4%	1.1	1.3	0.6	625.3	511.1	-18.3%
603122.SH	Cowearth Medical	16/02/2022	SSE Main Board	Distribution & retail	19.9%	163.4%	15.8	26.6	6.0	2,400.3	5,274.2	119.7%
301235.SZ	Huakang Century Medical	28/01/2022	SZSE ChiNext	Medical devices	-6.8%	5.9%	46.2	60.8	31.3	4,923.1	5,591.5	13.6%
301122.SZ	Caina Technology	26/01/2022	SZSE ChiNext	Puncture instruments and medical consumables	9.8%	-13.3%	69.8	89.1	50.9	6,813.8	5,378.8	-21.1%
603102.SH	Baihe Biology	25/01/2022	SSE Main Board	Nutrition	20.0%	-17.3%	47.5	73.4	35.2	3,883.5	2,675.2	-31.1%
301201.SZ	Chengda Pharmaceuticals	20/01/2022	SZSE ChiNext	CDMO	65.3%	-16.8%	92.0	143.2	49.3	12,430.3	6,258.2	-49.7%
688062.SH	Mabwell Bioscience	18/01/2022	SSE STAR	Biologicals	-23.4%	-49.9%	21.1	33.8	13.0	9,790.2	6,409.6	-34.5%
688176.SH	Yahong Meditech	07/01/2022	SSE STAR	Biologicals	-12.0%	-39.0%	15.0	20.0	10.0	10,032.0	6,954.0	-30.7%

Endnotes

- The types of M&A transactions covered in this section are detailed in Appendix I.
- 21CBH, Mindray acquired world-renowned immune material supplier Hytest with RMB 4.2 billion, <https://new.qq.com/rain/a/20210517A07AYQ00>
- "Wallaby Announces Launch of Two Strategic Partnerships to Establish a Full Neurovascular Interventional Value Chain." http://science.china.com.cn/2022-11/10/content_42165443.htm.
- Bursa Malaysia. https://www.bursamalaysia.com/market_information/announcements/company_announcement/announcement_details?ann_id=3265975.
- "Venus Medtech Acquires Cardiovalve to Optimize its Innovative Products Pipeline of Mitral and Tricuspid Valve Replacement." <https://www.prnewswire.com/news-releases/venus-medtech-acquires-cardiovalve-to-optimize-its-innovative-products-pipeline-of-mitral-and-tricuspid-valve-replacement-301439718.html>.
- Fosun pharma involved in the privatization of New Frontier Health Corporation, <https://new.qq.com/rain/a/20210814A0BFCM00>
- "Chinese Telemedicine Platform ETAO International Group is Going Public Through a Merger with SPAC Mountain Crest Acquisition Corp." <https://spac.mg21.com/merger/5504.html>.
- "Shanghai Pharmaceuticals Announces Worldwide Ex-China Licensing of SPH6162 to HUYABIO." CNINF, <http://www.cninfo.com.cn/new/disclosure/detail?orgId=gssh0600849&announcementId=1211419045&announcementTime=2021-10-29>.
- "Lilly Announces Complete Response Letter for Sintilimab in Combination with Pemetrexed and Platinum Chemotherapy for the First-Line Treatment of People with Nonsquamous Non-Small Cell Lung Cancer." PN Newswire, March 24, 2022, <https://www.prnewswire.com/news-releases/lilly-announces-complete-response-letter-for-sintilimab-in-combination-with-pemetrexed-and-platinum-chemotherapy-for-the-first-line-treatment-of-people-with-nonsquamous-non-small-cell-lung-cancer-301509537.html>.
- "The FDA Has Accepted its Resubmitted Marketing Application for Toripalimab for the Treatment of Nasopharyngeal Carcinoma, Junshi Biosciences Said." Lanjing Caijing, July 7, 2022, <https://new.qq.com/rain/a/20220707A05WX900>.
- "BeiGene Provides Regulatory Update on the U.S. Biologics License Application (BLA) for PD-1 Inhibitor Tislelizumab in 2L ESCC." Businesswire, July 14, 2022, <https://www.businesswire.com/news/home/20220714005202/en/>.
- The types of M&A transactions covered in this section are detailed in Appendix I.
- PRNewswire, Nature's Fynd announced it has raised USD350 million in Series C financing; <https://www.prnasia.com/story/326279-1.shtml>
- Finsmes, Tessera Therapeutics Raises Over USD300M in Series C Financing; <https://www.finsmes.com/2022/04/tessera-therapeutics-raises-over-300m-in-series-c-financing.html>
- Imperative Care received USD 260 million in Series D financing; <https://www.itjuzi.com/investevent/12572109>
- Boasting the most complete gene editing tools in the industry, Zhang Feng's new company won over USD200 million in financing and will take the initiative to focus on liver diseases; <https://www.163.com/dy/article/GOFUVK7H0532PL1J.html>
- Esco Lifesciences closes the USD200M Series A led by Vivo Capital and Novo Holdings; <https://www.vbdata.cn/51273>
- Xcovery, an overseas subsidiary of Betta Pharmaceuticals, announced its controlling stake in Meryx Inc.; <https://new.qq.com/rain/a/20211208A02US800>
- Reshuffling the neurovascular therapy landscape! MicroPort, now the largest shareholder of an innovative company; <https://www.innomd.org/article/6093522e23ce965474205637>
- 4C Medical closed USD35 million Series C financing; <https://www.finsmes.com/2022/04/4c-medical-technologies-closes-35m-series-c-financing.html>
- [First release] Osteal, the world's pioneer in high-efficiency treatment solution for post-joint replacement infection, completed a USD30 million Series B led by HM Capital. <https://www.vbdata.cn/54306>
- RNAimmune closes USD27M Series A to develop mRNA therapeutics and vaccines, <https://xueqiu.com/3465170159/215708666>
- IQVIA, Adjustment on National Medical Insurance Drug List in 2021—Thoughts and Actions
- National Bureau of Statistics
- CHIMA, 2019-2020 Survey on the Informatization Status of China Hospitals, March 2021; <http://www.chinanews.com/gn/2021/07-23/9526672.shtml>
- NHC, Report on the Sixth National Health Service Statistical Survey; January 2021; <http://www.nhc.gov.cn/mohwsbwstjxxzx/s2908/202101/0838723e3f3a4adb835d970abd551665.shtml>
- China government procurement website; http://www.ccgp.gov.cn/zcfg/mof/202110/t20211021_17050745.htm, 9 Nov. 2022
- Yidu Data, "White Paper on Medical Cosmetology Equipment Industry in 2021", Nov. 2021
- iResearch, "White Paper on Consumption of Online Medical and Health Services in China", Sep. 2022
- 21 Finance and Economics, Digital Healthcare under Spotlight | Can Metaverse and wearable devices set off a new era of health monitoring? <http://www.21jingji.com/article/20221108/herald/eab9caf47be209d5936fe5b8105839ae.html>, 8th Nov. 2022

Contacts

Authors

Kenneth Law

Financial Advisory Partner
China Life Sciences & Health Care
Email: kelaw@deloitte.com.cn

Ada Lu

Financial Advisory Manager
China Life Sciences & Health Care
Email: adarlu@deloitte.com.cn

Tony Lin

Research Assistant Manager
China Life Sciences & Health Care
Email: tonyclin@deloitte.com.cn

Acknowledgements

Thanks to Jens Ewert, Ellie Xu, Shirley Qian and Linda Pu who provided feedback or assistance.

Deloitte China LSHC Industry Leadership Team

Jens Ewert

Industry Leader
China Life Sciences & Health Care
Email: jensewert@deloitte.com.cn

David Yu

Audit & Assurance Leader
China Life Sciences & Health Care
Email: davyu@deloitte.com.cn

Carrie Xiao

Consulting Leader
China Life Sciences & Health Care
Email: carriexiao@deloitte.com.cn

Scott Sun

Consulting Deputy Leader
China Life Sciences & Health Care
Email: scottsun@deloitte.com.cn

Bill Yang

Financial Advisory Leader
China Life Sciences & Health Care
Email: bilyang@deloitte.com.cn

Travis Zhu

Risk Advisory Leader
China Life Sciences & Health Care
Email: jazhao@deloitte.com.cn

James Zhao

Tax Advisory Leader
China Life Sciences & Health Care
Email: trazhu@deloitte.com.cn

Office locations

Beijing

12/F China Life Financial Center
No. 23 Zhenzhi Road
Chaoyang District
Beijing 100026, PRC
Tel: +86 10 8520 7788
Fax: +86 10 6508 8781

Changsha

20/F Tower 3, HC International Plaza
No. 109 Furong Road North
Kaifu District
Changsha 410008, PRC
Tel: +86 731 8522 8790
Fax: +86 731 8522 8230

Chengdu

17/F China Overseas
International Center Block F
No.365 Jiaozhi Avenue
Chengdu 610041, PRC
Tel: +86 28 6789 8188
Fax: +86 28 6317 3500

Chongqing

43/F World Financial Center
188 Minzu Road
Yuzhong District
Chongqing 400010, PRC
Tel: +86 23 8823 1888
Fax: +86 23 8857 0978

Dalian

15/F Shenmao Building
147 Zhongshan Road
Dalian 116011, PRC
Tel: +86 411 8371 2888
Fax: +86 411 8360 3297

Guangzhou

26/F Yuexiu Financial Tower
28 Pearl River East Road
Guangzhou 510623, PRC
Tel: +86 20 8396 9228
Fax: +86 20 3888 0121

Hangzhou

Room 1206
East Building, Central Plaza
No.9 Feiyunjiang Road
Shangcheng District
Hangzhou 310008, PRC
Tel: +86 571 8972 7688
Fax: +86 571 8779 7915

Harbin

Room 1618
Development Zone Mansion
368 Changjiang Road
Nangang District
Harbin 150090, PRC
Tel: +86 451 8586 0060
Fax: +86 451 8586 0056

Hefei

Room 1506 Tower A China Resource Building
No.111 Qian Shan Road
Shu Shan District
Hefei 230022, PRC
Tel: +86 551 6585 5927
Fax: +86 551 6585 5687

Hong Kong

35/F One Pacific Place
88 Queensway
Hong Kong
Tel: +852 2852 1600
Fax: +852 2541 1911

Jinan

Units 2802-2804, 28/F
China Overseas Plaza Office
No. 6636, 2nd Ring South Road
Shizhong District
Jinan 250000, PRC
Tel: +86 531 8973 5800
Fax: +86 531 8973 5811

Macau

19/F The Macau Square Apartment H-L
43-53A Av. do Infante D. Henrique
Macau
Tel: +853 2871 2998
Fax: +853 2871 3033

Nanchang

Unit 08-09, 41/F Lianfa Plaza
No.129 Lv Yin Road
Honggutang District
Nanchang 330038, PRC
Tel: +86 791 8387 1177

Nanjing

40/F Nanjing One IFC
347 Jiangdong Middle Road
Jianye District
Nanjing 210019, PRC
Tel: +86 25 5790 8880
Fax: +86 25 8691 8776

Ningbo

Room 1702 Marriott Center
No.168 Heyi Road
Haishu District
Ningbo 315000, PRC
Tel: +86 574 8768 3928
Fax: +86 574 8707 4131

Sanya

Floor 16, Lanhaihuating Plaza
(Sanya Huaxia Insurance Center)
No. 279, Xinfeng street
Jiyang District
Sanya 572099, PRC
Tel: +86 898 8861 5558
Fax: +86 898 8861 0723

Shanghai

30/F Bund Center
222 Yan An Road East
Shanghai 200002, PRC
Tel: +86 21 6141 8888
Fax: +86 21 6335 0003

Shenyang

Unit 3605-3606,
Forum 66 Office Tower 1
No. 1-1 Qingnian Avenue
Shenhe District
Shenyang 110063, PRC
Tel: +86 24 6785 4068
Fax: +86 24 6785 4067

Shenzhen

9/F China Resources Building
5001 Shennan Road East
Shenzhen 518010, PRC
Tel: +86 755 8246 3255
Fax: +86 755 8246 3186

Suzhou

24/F Office Tower A, Building 58
Suzhou Center
58 Su Xiu Road, Industrial Park
Suzhou 215021, PRC
Tel: +86 512 6289 1238
Fax: +86 512 6762 3338 / 3318

Tianjin

45/F Metropolitan Tower
183 Nanjing Road
Heping District
Tianjin 300051, PRC
Tel: +86 22 2320 6688
Fax: +86 22 8312 6099

Wuhan

Unit 1, 49/F
New World International Trade Tower
568 Jianshe Avenue
Wuhan 430000, PRC
Tel: +86 27 8538 2222
Fax: +86 27 8526 7032

Xiamen

Unit E, 26/F International Plaza
8 Lujiang Road, Siming District
Xiamen 361001, PRC
Tel: +86 592 2107 298
Fax: +86 592 2107 259

Xi'an

Unit 3003, 30/F China Life Finance Centre
11 Tangyan Road, High-tech Zone
Xi'an 710075, PRC
Tel: +86 29 8114 0201
Fax: +86 29 8114 0205

Zhengzhou

Unit 5A10, Block 8, Kineer Center
No.51 Jinshui East Road
Zhengdong New District
Zhengzhou 450018, PRC
Tel: +86 371 8897 3700
Fax: +86 371 8897 3710



Deloitte China provides integrated professional services, with our long-term commitment to be a leading contributor to China's reform, opening-up and economic development. We are a globally connected firm with deep roots locally, owned by our partners in China. With over 20,000 professionals across 30 Chinese cities, we provide our clients with a one-stop shop offering world-leading audit & assurance, consulting, financial advisory, risk advisory, business advisory and tax services.

We serve with integrity, uphold quality and strive to innovate. With our professional excellence, insight across industries, and intelligent technology solutions, we help clients and partners from many sectors seize opportunities, tackle challenges and attain world-class, high-quality development goals.

The Deloitte brand originated in 1845, and its name in Chinese (德勤) denotes integrity, diligence and excellence. Deloitte's professional network of member firms now spans more than 150 countries and territories. Through our mission to make an impact that matters, we help reinforce public trust in capital markets, enable clients to transform and thrive, empower talents to be future-ready, and lead the way toward a stronger economy, a more equitable society and a sustainable world.

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited ("DTTL"), its global network of member firms, and their related entities (collectively, the "Deloitte organization"). DTTL (also referred to as "Deloitte Global") and each of its member firms and related entities are legally separate and independent entities, which cannot obligate or bind each other in respect of third parties. DTTL and each DTTL member firm and related entity is liable only for its own acts and omissions, and not those of each other. DTTL does not provide services to clients.

Deloitte Asia Pacific Limited is a company limited by guarantee and a member firm of DTTL. Members of Deloitte Asia Pacific Limited and their related entities, each of which are separate and independent legal entities, provide services from more than 100 cities across the region.

Please see www.deloitte.com/about to learn more.

This communication and any attachment to it is for internal distribution among personnel of Deloitte Touche Tohmatsu Limited ("DTTL"), its global network of member firms and their related entities (collectively, the "Deloitte organization"). It may contain confidential information and is intended solely for the use of the individual or entity to whom it is addressed. If you are not the intended recipient, please notify us immediately, do not use this communication in any way and then delete it and all copies of it on your system.

None of DTTL, its member firms, related entities, employees or agents shall be responsible for any loss or damage whatsoever arising directly or indirectly in connection with any person relying on this communication. DTTL and each of its member firms, and their related entities, are legally separate and independent entities.

© 2022 Deloitte Touche Tohmatsu in Hong Kong, Deloitte Touche Tohmatsu in Macau, and Deloitte Touche Tohmatsu Certified Public Accountants LLP in the Chinese Mainland. All rights reserved.
Designed by CoRe Creative Services. RITM1230620



This is printed on environmentally friendly paper