

2018

YiChang HEC ChangJiang Pharmaceutical Co., Ltd.

Stock Code : 1558.HK

**Table of
Contents**

- 01 **Results Highlights**
- 02 **Financial Analysis**
- 03 **Business Review**
- 04 **Future Product Pipeline**
- 05 **Blackstone Strategic Investment & Partnership**
- 06 **Appendix**

/01

Results Highlights

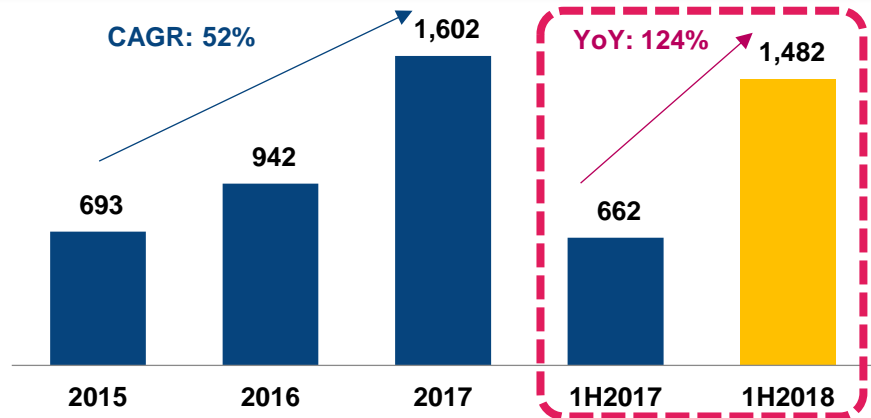
Business Highlights

- **Strong business growth in 1H2018 led by Kewei, supported by hospital network expansion amid ongoing industry shift towards modern influenza treatments**
 - Kewei sales growth driven by increased Oseltamivir adoption in the context of elevated influenza activity in 1H2018
 - Kewei market positioning further strengthened from continued hospital penetration and expansion of sales & distribution network
 - Significant market white space remains as Oseltamivir continues to replace obsolete anti-influenza treatments
- **Further product portfolio diversification driven by**
 - Accelerated growth momentum of Ertongshu
 - Pipeline drugs progressing on track (Generation II / III insulin portfolio and Hepatitis C)
 - Acquisition of generic portfolio from Research Center (pending shareholder approval)
- **Blackstone investment as a long-term strategic partner to help accelerate business growth (pending shareholder approval)**

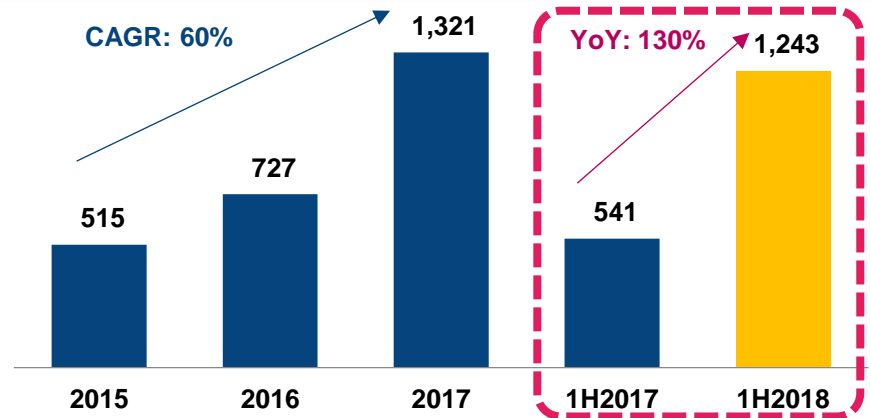
2018 Interim Financial Results Highlights

Strong financial performance is achieved across the board

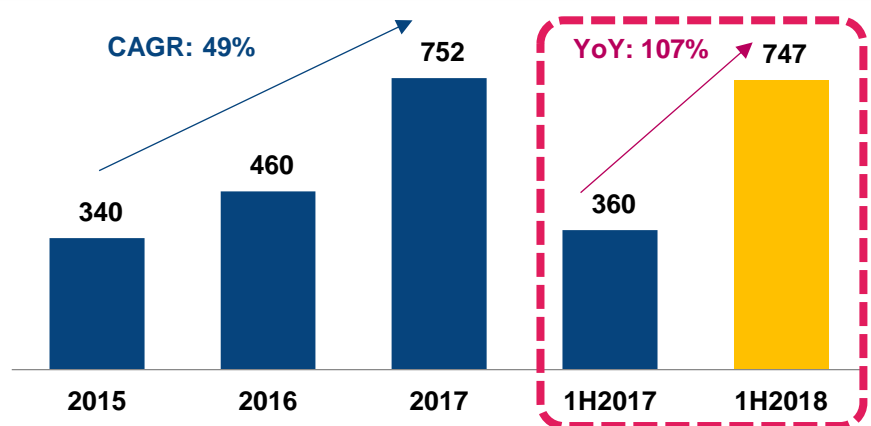
Revenue (RMB millions)



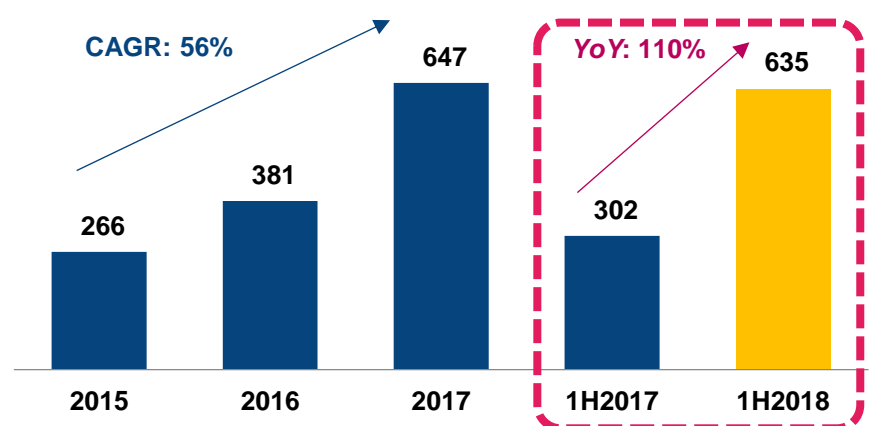
Gross Profit (RMB millions)



Profit from Operations (RMB millions)



Net Profit (RMB millions) ⁽¹⁾

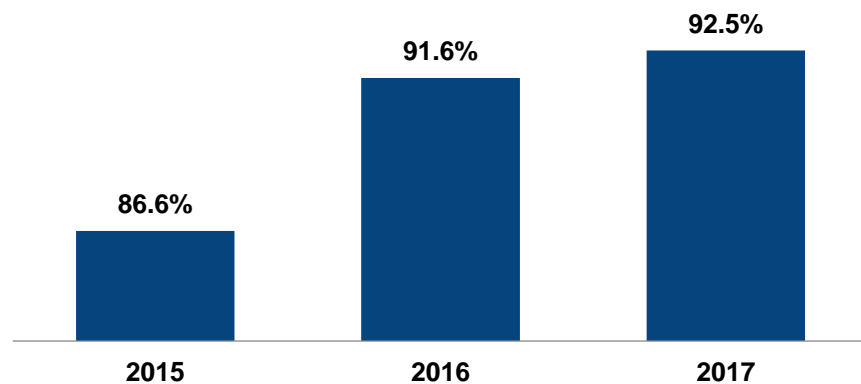


Note: (1) Total profit and total comprehensive income attributable to equity shareholders of the company

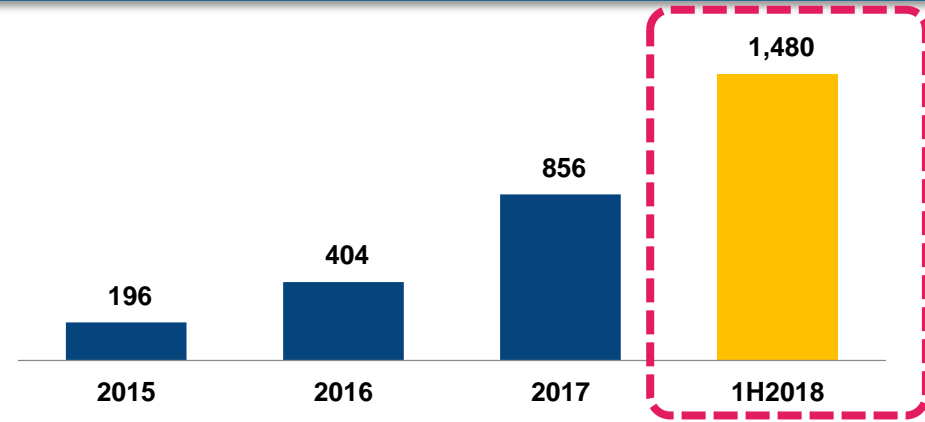
2018 Interim Operational Highlights

Financial performance underpinned by hospital network expansion and operational scale ramp-up

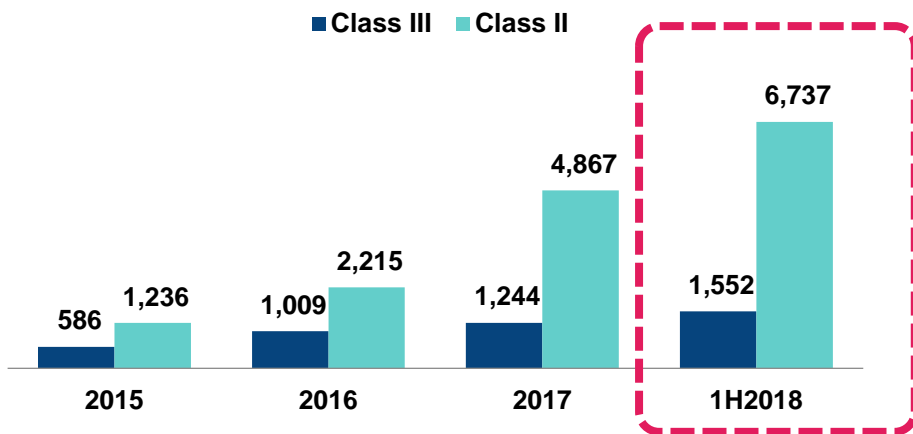
Kewei Market Share Within Oseltamivir



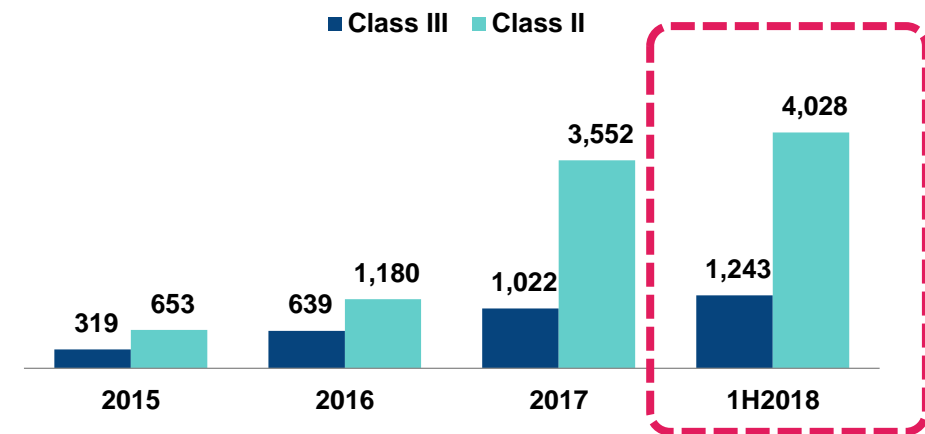
Company Sales Team Headcount



Kewei Granule Hospital Penetration (# Hospitals)



Kewei Capsule Hospital Penetration (# Hospitals)



Blackstone Strategic Investment

- Blackstone's strategic investment is an important milestone and a new beginning for the Company
- Blackstone is one of the world's leading investment firms with approximately \$440 billion in assets under management and a strong healthcare sector investment track record globally
- The Company expects Blackstone to play a key role in supporting the execution of management's strategic vision, helping the Company achieve its target of becoming a leading pharmaceutical company across multiple treatment areas in China
- Convertible bond issuance proceeds will be deployed to purchase new drugs, expand production capacity, grow sales & distribution network
- Strategic partner to help implement global best practices and ensure continued value creation for all Company shareholders

/02

Financial Analysis

Financial Overview (P&L)

<i>(RMB MM)</i>	1H2018	1H2017	<i>Change</i>
Revenue	1,482	662	123.8%
Cost of revenues	(239)	(122)	96.5%
Gross profit	1,243	541	130.0%
EBITDA	775	377	105.3%
Profit from operations	747	360	107.3%
Net Profit ⁽¹⁾	635	302	110.2%
<i>Gross Margin</i>	84%	82%	2.3%
<i>EBITDA Margin</i>	52%	57%	(4.7%)
<i>Operating Margin</i>	50%	54%	(4.0%)
<i>Net Margin</i>	43%	46%	(2.8%)
Basic EPS (RMB/share)	1.40	0.67	109.0%

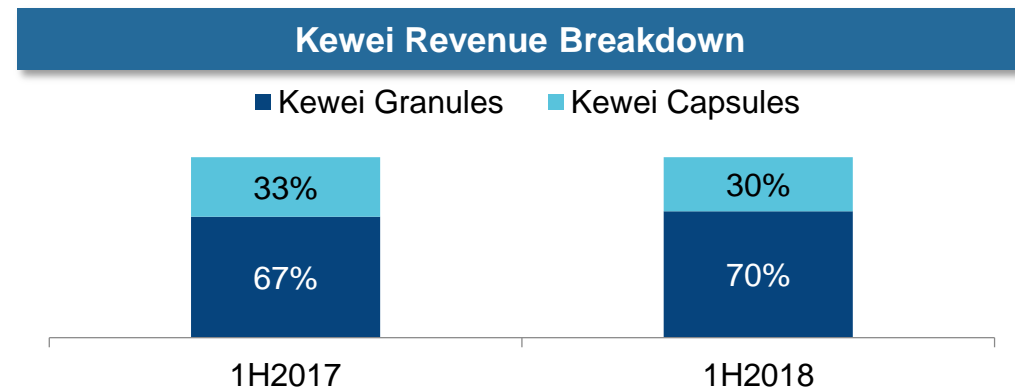
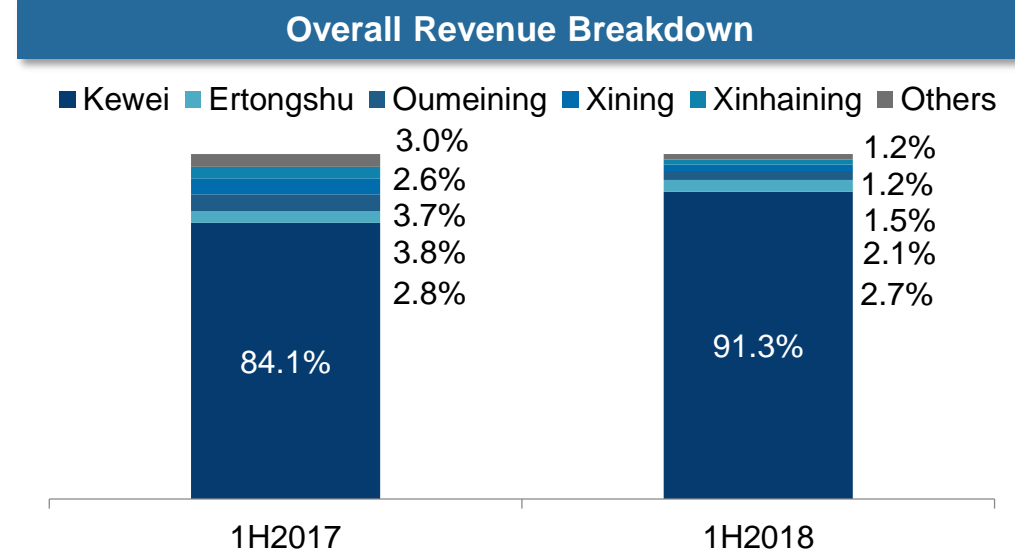
Notes:

(1) Total profit and total comprehensive income attributable to equity shareholders of the company

Financial Overview (Revenue Breakdown)

Top-line growth strength led by core products Kewei and Ertongshu

(RMB MM)	1H2018	1H2017	Change
Kewei	1,354	557	143.1%
Ertongshu	40	18	118.6%
Oumeining	31	25	20.7%
Xinhaining	17	17	(1.9%)
Xining	23	25	(8.2%)
Other	19	20	(6.0%)
Total	1,482	662	123.8%



Financial Overview (Balance Sheet)

Company continues to prudently manage the Company's balance sheet

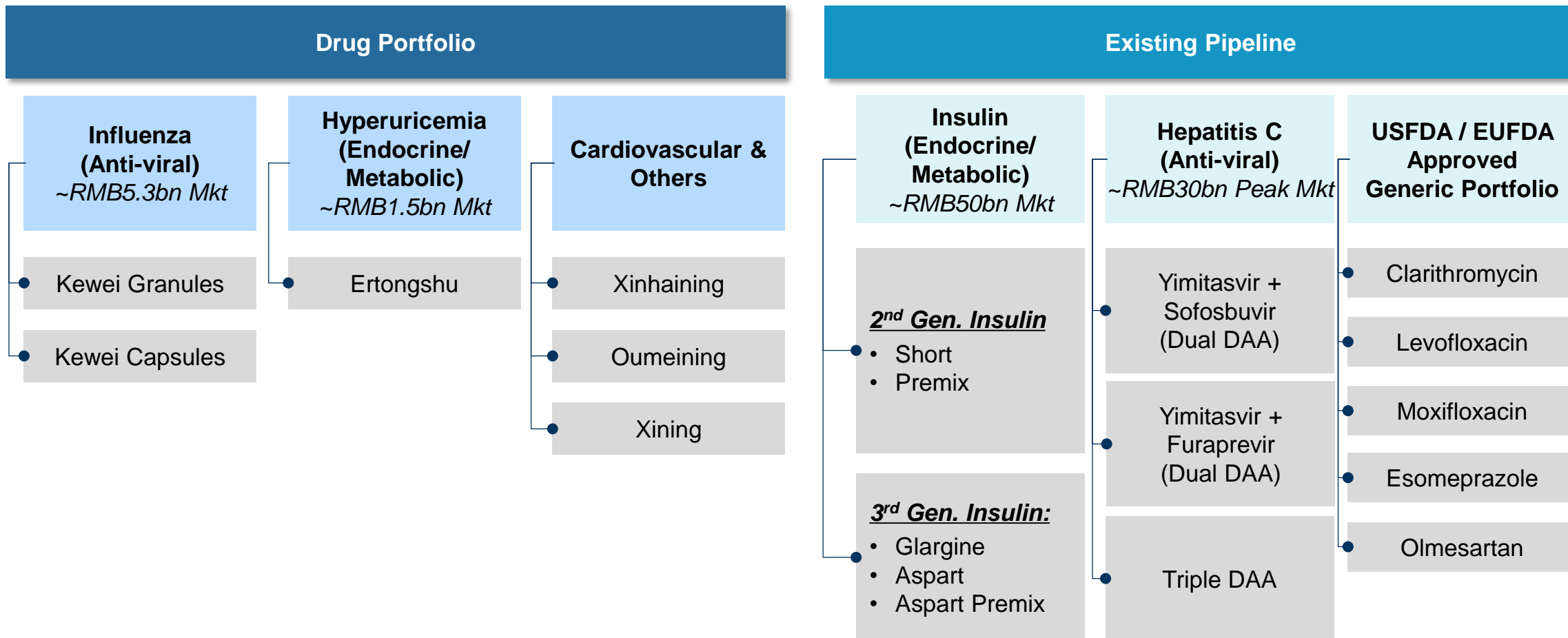
<i>(RMB MM)</i>	1H2018	2017
Total assets	4,572	3,776
Total liability	1,013	715
Net assets	3,560	3,061
<i>Gearing ratio</i>	<i>0.56%</i>	<i>0.65%</i>
<i>Quick ratio</i>	<i>2.44</i>	<i>3.09</i>
Cash and cash equivalents	1,356	887

/03

Business Review

Portfolio & Pipeline Overview

Long-term growth anchored by drug portfolio and promising existing pipeline targeting high potential treatment areas



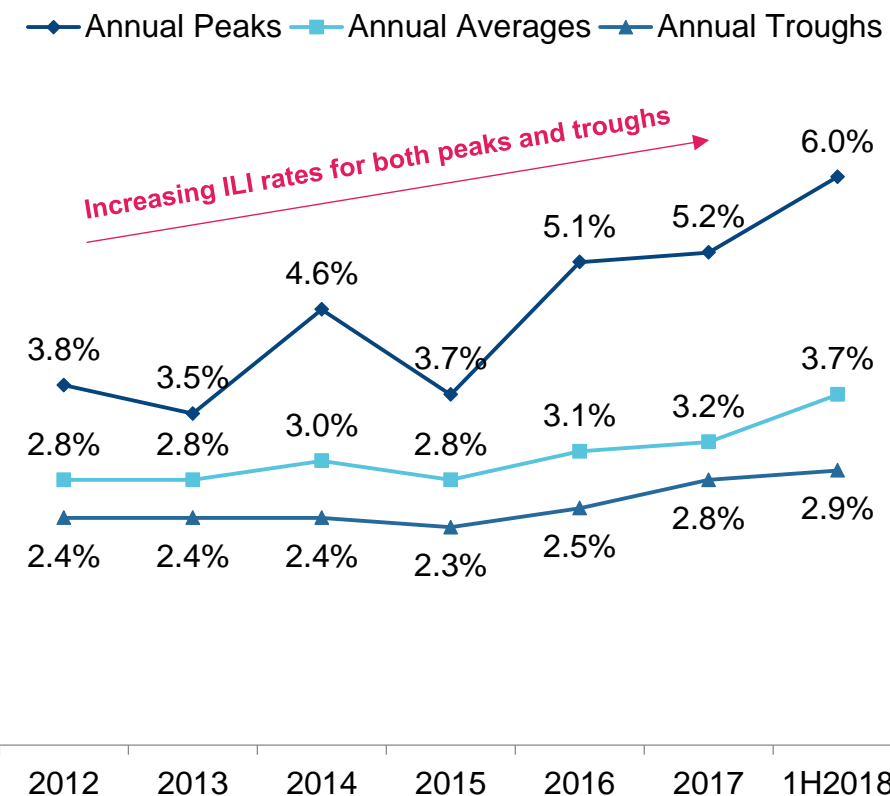
Influenza (Anti-viral)

Significant Market Potential in China

Influenza activity continues to increase, driving ongoing shift to modern treatments away from obsolete Amantadine & TCM drugs, which currently still account for >50% of the treatment market

- 1 Steady Treatment Market Growth**
 - Influenza treatment market in China to grow at 22% CAGR from 2014-19
 - By 2019, market size of anti-influenza products in China will reach more than RMB5.3 billion
- 2 Increasing influenza activity**
 - According to the WHO, Influenza occurs globally with an annual prevalence rate estimated at 5%-10% in adults and 20%-30% in children
- 3 Higher Influenza Incidence for Children**
 - In the PRC, influenza treatment rate for children is estimated at 10-15%
 - During peak seasons, treatment rate spikes to more than 40% for pre-school children and 30% school-age children
- 4 Market Shift to Oseltamivir Away from Obsolete Treatments**
 - PRC influenza treatment market shifting from obsolete Amantadine-based drugs to proven treatments led by Oseltamivir. Management estimates Oseltamivir adoption rate currently at ~40% vs. >90% in the U.S.
 - Amantadine is not recommended for use in the U.S. and most developed countries due to ineffectiveness against influenza and influenza resistance against the compound
 - CFDA now expressly prohibits the use of Amantadine for treating newborns and children under 1 year old infant and recommends against prescription for children younger than 5

China Influenza-Like Illness (ILI) as % of Outpatients



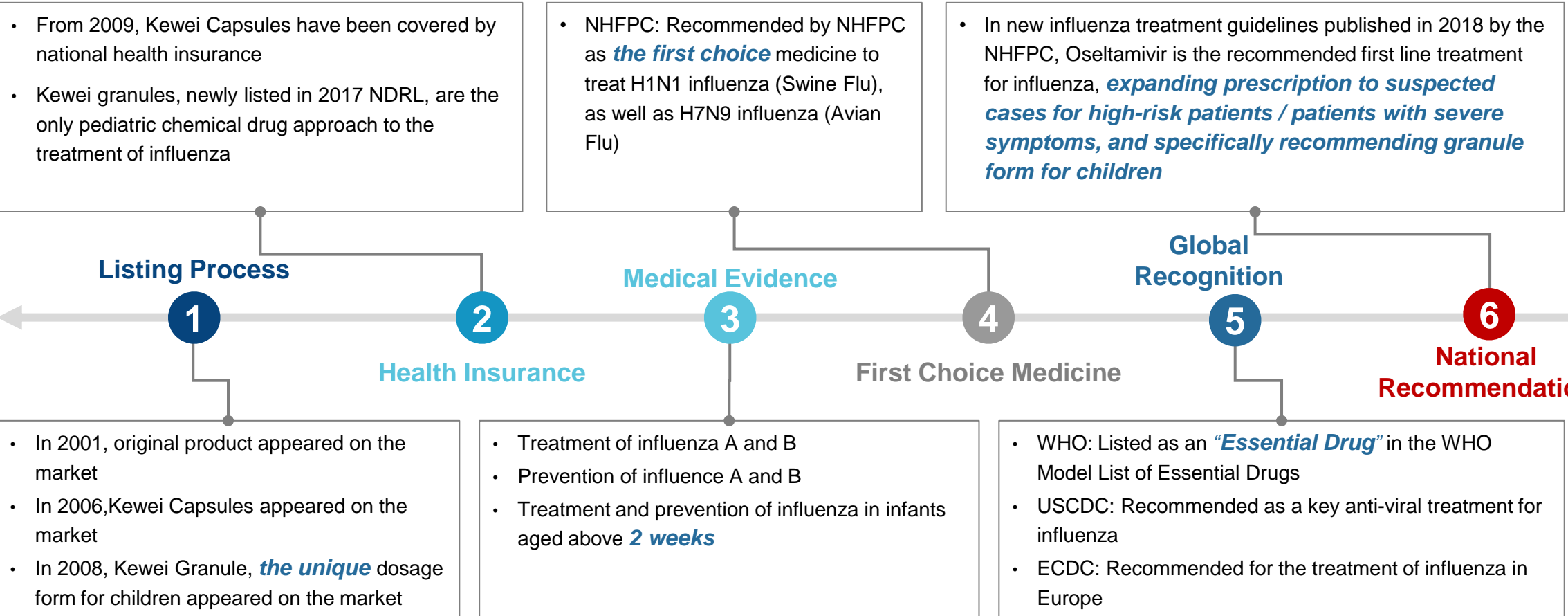
Source: Chinese National Influenza Center

Influenza (Anti-viral)



Oseltamivir the Recommended First-Line Treatment for Influenza in China

Recent influenza activity has heightened public and physician awareness of influenza, accelerating adoption of Oseltamivir as the recognized and recommended treatment



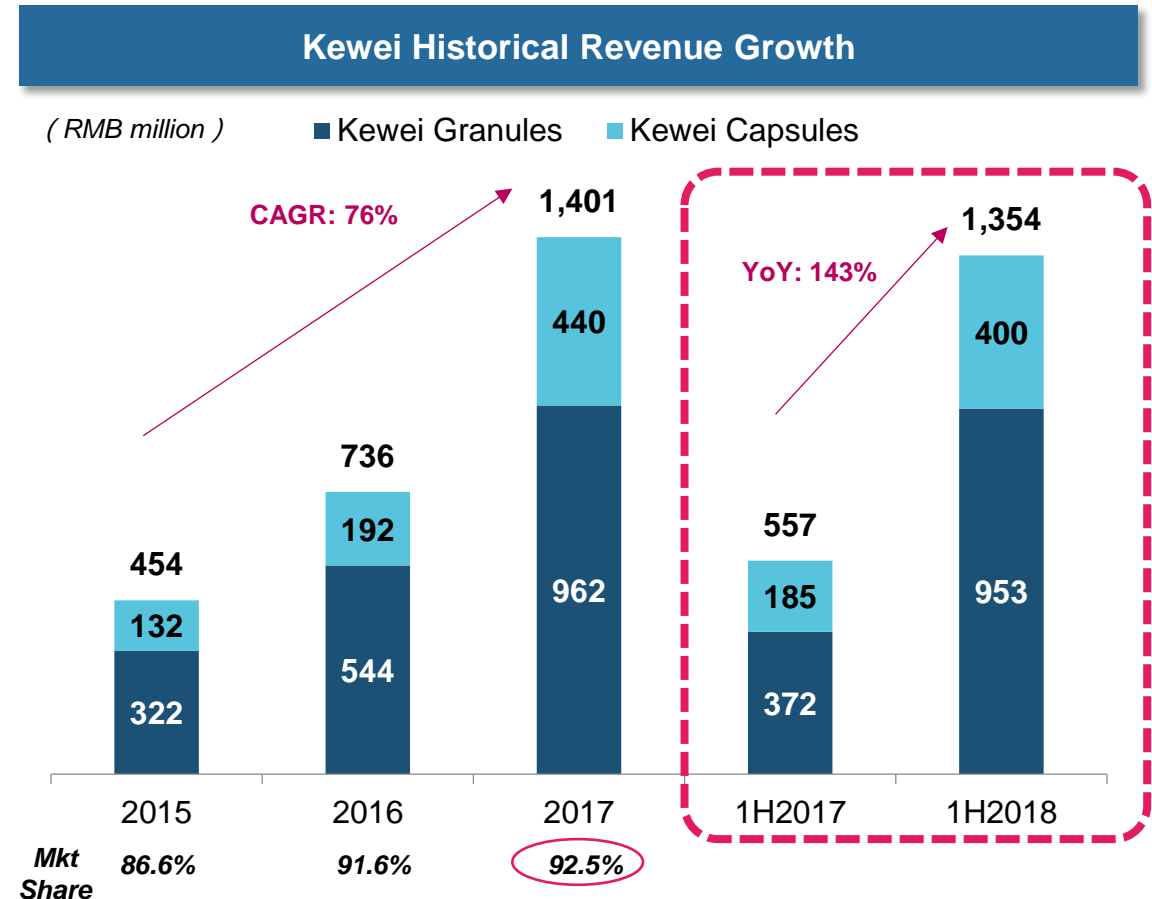
Influenza (Anti-viral)

Kewei is the Top Oseltamivir Brand in China



Kewei is the preferred Oseltamivir brand across China, with market shares further strengthened post exit of only domestic competitor in 2017

- Ranked **#1** in terms of sales from the oseltamivir phosphate products since 2013
- The **only** manufacturer of the patent-protected granules form of oseltamivir phosphate in the PRC, targeting the pediatrics market in the PRC with IP protection until 2026
- Kewei granule form was ranked as the **#7** branded drug in China's 2017 pediatric drug rankings

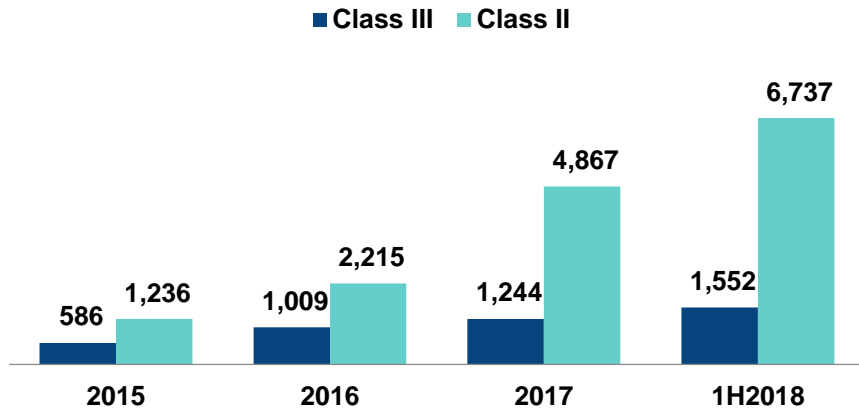


Influenza (Anti-viral)

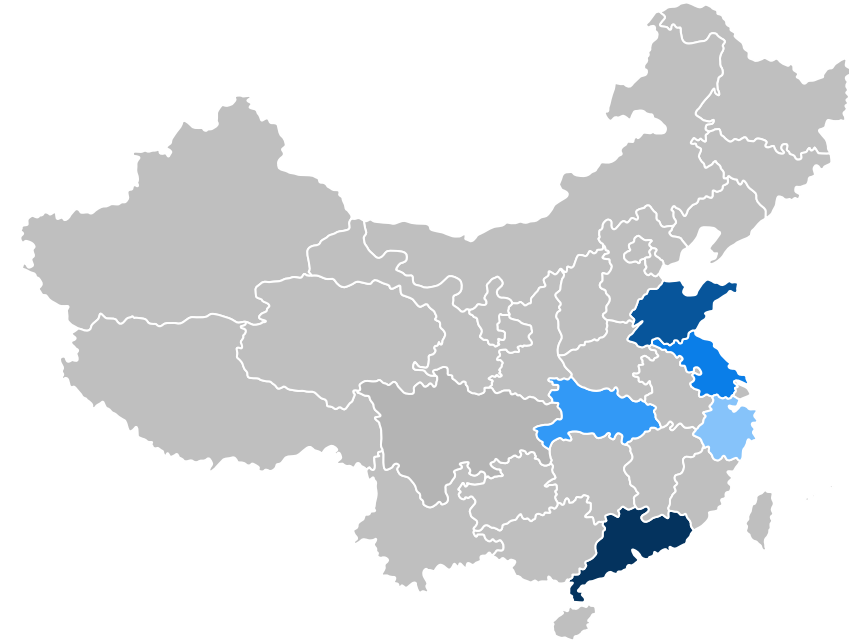
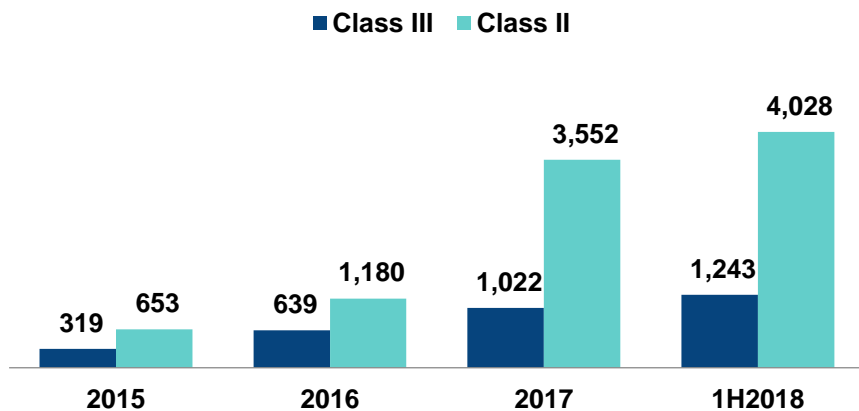
Significant White Space for Future Kewei Growth

Significant white space remains across China, most notably in northern regions, with continued hospital penetration and consumption per hospital increase driving Kewei growth

Kewei Granule Hospital Penetration



Kewei Capsule Hospital Penetration



Top 5 Province Kewei Revenue Contribution and YoY % Growth

Province	1H2018 % Contribution	1H2018 YoY % Growth
Guangdong	24.1%	53%
Shandong	5.9%	126%
Jiangsu	5.7%	254%
Hubei	5.7%	122%
Zhejiang	5.4%	186%

Hyperuricemia (Endocrine / Metabolic) Strong Ertongshu Momentum

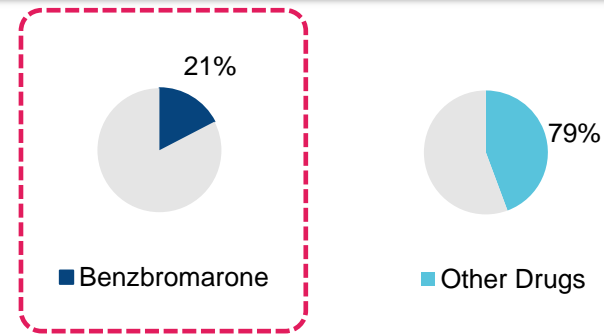


Investments in dedicated sales team for Ertongshu has helped to drive accelerated growth

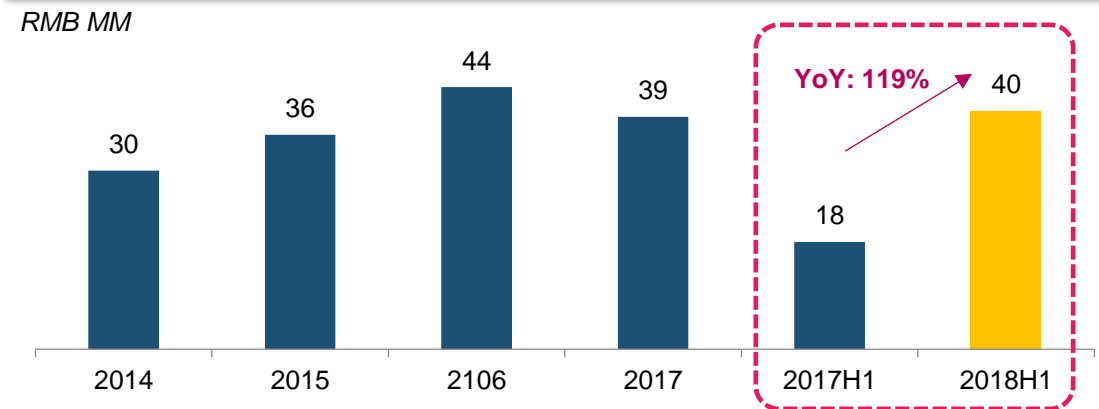
- China has an estimated **180 million** hyperuricemia patients, with over **12 million** gout patients and seeing accelerating growth
- Hyperuricemia is ranked the fourth highest disease, trailing only hypertension, high cholesterol and high blood sugar. The prevalence rate in mainland China is **13.3%**
- From 2014 to 2019, the compound annual growth rate of the overall Hyperuricemia market in China is expected to reach **13.7%** to more than **RMB1.5 billion** by 2019
- As of 1H2018, Company has a **250-people sales force** designated for Ertongshu, and targets to reach **400** by end of 2018
- Ertongshu expected to be **the first** to pass consistency evaluation

Source: PDB

Hyperuricemia Treatment Share Breakdown



Sales of Ertongshu



Sales Team Overview and Strategy

Continued expansion of sales force providing strong support for future Kewei growth and driving further Oseltamivir adoption



- **China market dividend into 7 sales regions** (Guangzhou, Fujian, Shanghai, Changchun, Beijing, Xian, Chengdu)
- By organizing various academic promotion activities and clinical studies, HEC Pharm continues to improve product penetration across China, driving adoption of modern treatments (e.g. Oseltamivir Phosphate) over obsolete treatments (e.g. Amantadine) and expanding the addressable market



Headcount	Timing	Commentary
404	2016	Sales team focused on Kewei products only
856	2017	Sales team geographical coverage expansion beyond Guangdong
1,480	1H2018	Increasing coverage across hospital classes, with dedicated sales team focused on promoting 3 core drugs (Kewei granules, Kewei capsules, and Ertongshu), and targeted focus on relevant hospital departments

Optimized Sales Strategy

Establishment of four sales team supporting comprehensive sales strategy

Core Drug Academic Promotion Sales Team

- In-house sales team responsible for academic promotion of core drugs (Kewei & Ertongshu) across Class III & II hospitals
- The team had 1,107 members as of June 30, 2018



Distributors Recruitment & Management Team

- Responsible for recruitment and management of 3rd party distributor partners handling drug sales into Class III & II hospitals
- The team had 52 members as of June 30, 2018

General Medicine Sales Team

- In-house sales team responsible for academic promotion facing hospitals (Class I Hospitals and Community Clinics) mostly consisted of general practitioners
- The team had 185 members as of June 30, 2018

OTC Channel Sales Team

- In-house sales team responsible for sales of all drugs in OTC pharmacies
- The team had 136 members as of June 30, 2018

/04

Future Product Pipeline

High Potential Pipeline Targeting Critical Treatment Areas

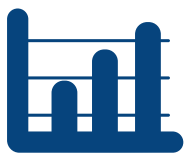
Continued progress on pipeline drugs development, targeting to become one of the top local firms in China with full insulin portfolio and dual DAA Hepatitis C drugs

Drug Name	Therapeutic Area	Current Status	Target Approve Time	Preliminary Results	Product Highlights
Yimetasvir phosphate	HCV	Clinical phase III	2019	<ul style="list-style-type: none"> Clinical phase II SVR12 up to 100% Good safety and tolerance results 	<ul style="list-style-type: none"> All-oral therapy Administered once daily for 12 weeks
Furaprevir	HCV	Clinical phase II	2020	<ul style="list-style-type: none"> Clinical phase II demonstrates good effectiveness and safety 	<ul style="list-style-type: none"> All-oral therapy Administered once daily for 12 weeks
Triple DAA	HCV	Clinical phase I	--	--	--
Recombinant human insulin injection	Diabetes	Pending for NDA	Early 2019	<ul style="list-style-type: none"> Based on Phase I and III clinical trials, Company's recombinant human insulin injection has the comparable effectiveness and safety as the original innovator Established good cooperative relationships with a group of clinical trial centers Product efficacy and safety have been recognized by many patients and physicians 	<ul style="list-style-type: none"> R&D standards / clinical development strategy based on the latest EU/US biosimilar drug technology guidelines, with aim of developing high-quality biosimilars that are comparable to the original innovator drugs Employing a yeast expression system which is simpler, easier to expand and more cost effective than E. coli expression system
Isophane protamine recombinant human insulin injection(pre-mixed 30R)	Diabetes	Clinical phase III	Late 2020		
Insulin glargine injection	Diabetes	Clinical phase III	Late 2020		
Insulin aspart injection	Diabetes	Clinical phase I	2021		
Insulin aspart pre-mixed 30 injection	Diabetes	Clinical phase III	2021		

Insulin (Endocrine / Metabolic) Outlook for the Chinese Insulin Market

Insulin represents an attractive market with large patient pool and growth headroom

425 million diabetic patients worldwide



- 425 million diabetic adult patients globally, per statistics from IDF
- Most patients are aged 40-59, with faster growth in morbidity rate recorded in developing nations relative to developed economies

114 million diabetic patients in China



- Judging by the morbidity (11.6%) of diabetes among Chinese adults, the total number of diabetic patients in the country is estimated to be around 114 million

60%

Insulin accounts for 60% of drugs used in diabetes treatment across the world

Data from Chinese sample hospitals show that insulin makes up roughly 40% of medicines used in diabetes treatment. If insulin consumption at the grassroots level is factored in, the actual insulin proportion is projected to be below 40%

40%

RMB

50 billion long-term (2023) market opportunity

Future trends

- Substitution of imported drugs with Chinese products
- The proportion of insulin to all drugs used in diabetes treatment will increase to the international level
- An upgrade from 2nd-generation to 3rd-generation products

Insulin (Endocrine / Metabolic)

The HEC Edge

Company is well-positioned to capture the insulin market opportunity with a comprehensive portfolio of Generation II / III insulin products



Insulin API's designed production capacity

- Recombinant human 600kg/year
- Glargine insulin 200kg/year
- Aspart insulin 450kg/year

Insulin production capacity ramp-up roadmap

- Current capacity 2.5 m cartridges
- Designed capacity (2019) 10 m cartridges
- Designed capacity (2021) 80 m cartridges



Complete product line planning

- HEC has a complete insulin portfolio covering generation II / III insulin products, ranking the Company among the only few Chinese pharmaceutical companies capable of developing a full range of insulin products
- Complete insulin offering a notable competitive advantage since different medical practitioners have different medication preferences (e.g. pre-mixed, long-acting and reinforced drugs)



Advanced technology

- Reliable production technique, with commercialized production in batch achieved during the IND application process
- Insulin and analog products are produced employing a yeast expression system which is simpler, easier to expand and more cost effective than the E. coli expression system
- Both insulin phase-1 plant and phase-2 plant (under construction) are designed in compliance with GMP standards in China, U.S. and E.U. The phase-1 plant has been in operation for several years, and has acquired experience in commercial multiple batch production of 2nd-gen and 3rd-gen insulin APIs, with sustainable and reliable preparation and production techniques



Top quality

- R&D standards and the clinical development strategy are formulated based on the latest EU/US biosimilar drug technology guidelines, with aim of developing high-quality biosimilars that are comparable to the original products and outperform Chinese competitors
- Clinical trials were conducted by top organizations and researchers in the field. HEC partnered up leading global clinical research organizations to facilitate the research program and expedite the market launch process. The Company's product has gained recognition from opinion leaders, laying the groundwork for successful marketing after product release

Hepatitis C (Anti-viral) Market Potential and Company Strategy



HCV represents an attractive market with meaningful embedded growth and Company has devised a well-rounded strategy to benefit from the tailwinds

180 million
infections globally

- Global HCV infection rate currently stands at 3%, and some 180 million people have been infected, WHO statistics showed



250,000
newly diagnosed patients
annually in China

- China has about 10 million people diagnosed with HCV
- The figure increases by 250,000 every year

7% of HCV
patients to contract
liver cancer

- Some 2% to 7% hepatitis C patients will contract liver cancer

RMB
30 billion
peak market
opportunity



- Subject enrollment has been completed for the Phase-III clinical trial of Yimetasvir Phosphate + sofosbuvir combination. **We expect to submit the NDA in early 2019 and obtain the approval by end of 2019**
- Phase-II clinical trial of Yimetasvir Phosphate + furaprevir **will end soon, and phase-III trial will start by year end**
- Yimetasvir Phosphate has secured special funding from the 12th "Five-year Plan" program
- **Company aims to become one of the first Chinese pharmaceutical companies to release an oral interferon-free DAAs therapy**



Joint
venture



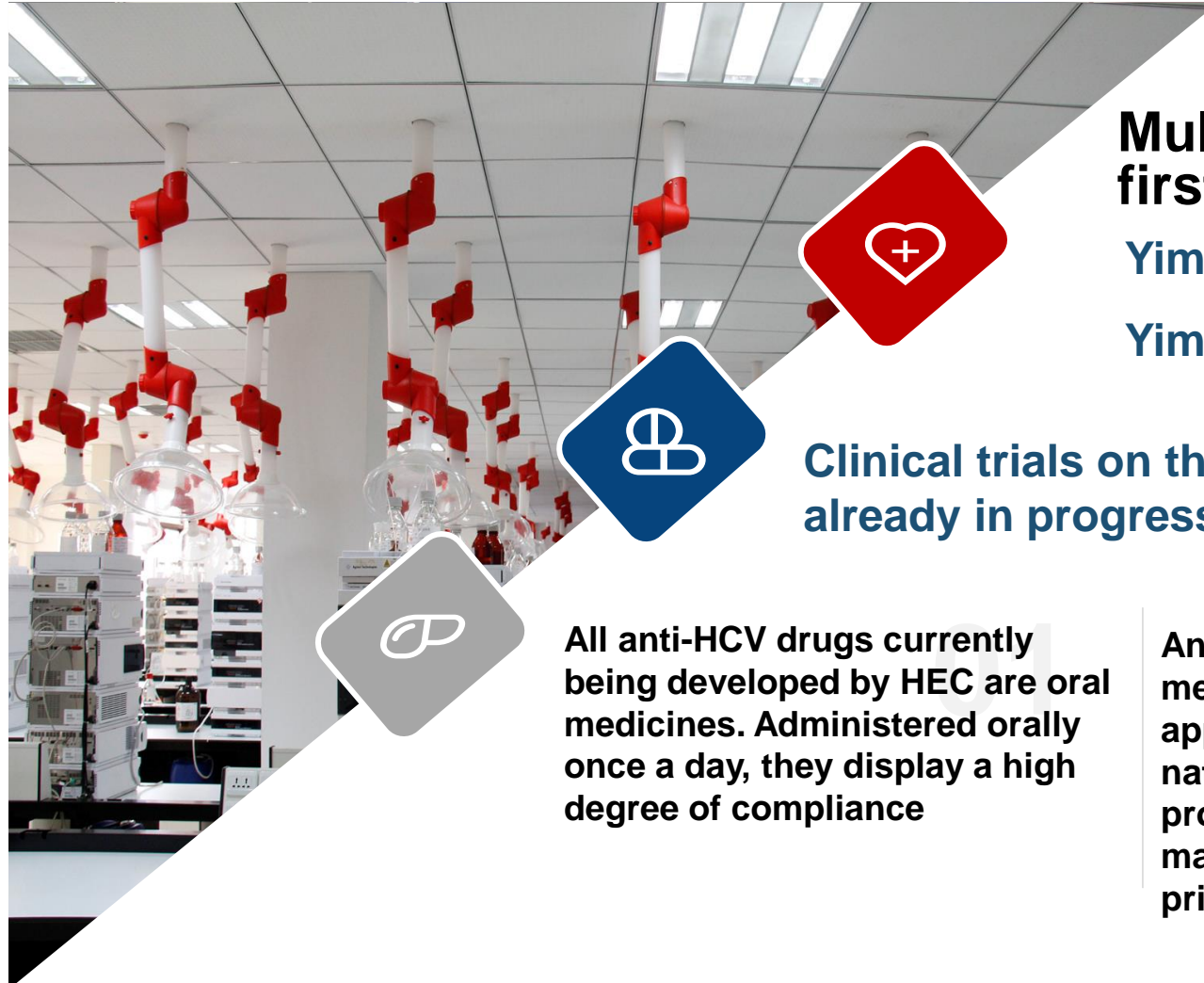
- JV with Taigen Biotechnology focuses on clinical research around the development of a new oral interferon-free DAAs combination therapy (Yimetasvir + Furaprevir)
- Potential to become a leading anti-HCV medicine in the PRC

*Other DAAs projects
currently in clinical
development stage*

Hepatitis C (Anti-viral)

The HEC Edge

Company's Yimitasvir / Sofosbuvir and Yimitasvir / Furaprevir are positioned as one of the 1st domestically-manufactured dual-DAA treatments to achieve commercialization in China



Multiple combinations and among the first oral anti-HCV drugs in China

Yimitasvir Phosphate + Sofosbuvir

Yimitasvir Phosphate + Furaprevir

Clinical trials on the genome-based combination plan already in progress

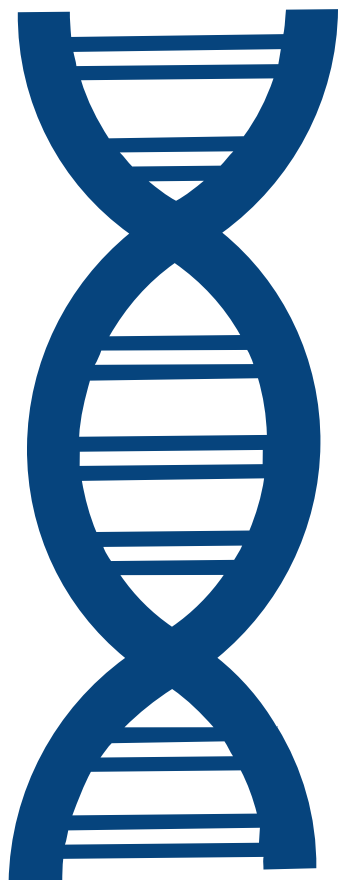
All anti-HCV drugs currently being developed by HEC are oral medicines. Administered orally once a day, they display a high degree of compliance

An original Chinese medicine, the product will apply for inclusion into national medical insurance program immediately after market launch, with clear price advantage

HEC's strong antiviral sales team is a firm guarantee of a substantial market share

HEC Supported by Leading R&D Team at Research Center

Company drug pipeline replenishment underpinned by leading Research Center, allowing Company to selectively acquire high value drugs without bearing actual R&D risk



Strong R&D team

- HEC R&D Group had over 2,000 R&D staff members, including 24 overseas experts, 6 experts of “National 1,000 People Plan” (國家千人計畫) and 1 officer of “Young Leadership Program” (青年領軍人才)



Rich pipeline of new drugs

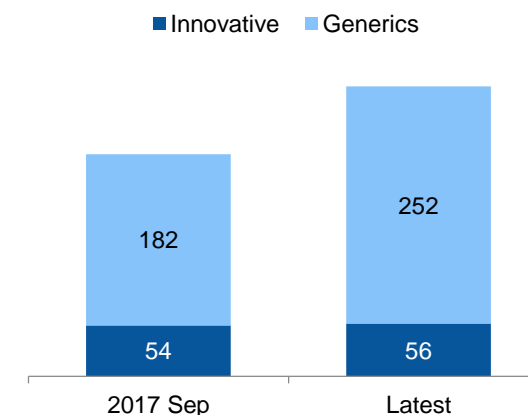
- 27 research projects granted as “the National Major Innovative Drug Projects” (國家新藥創制重大專項) In the 11th, the 12th and the 13th Five Years Plan”
- Several Medicines are anticipated to be the National Class 1.1 Innovative drugs



Pre-emptive Rights

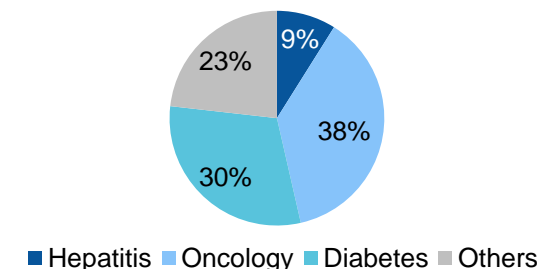
- The Company has the pre-emptive right to purchase products from Research Center for China
- Drugs acquired but not successfully approved will be fully refunded

Expanding Pipeline (# of Drugs)



Breakdown by Treatment Areas

Innovative Drugs Pipeline



Rich Source of New Drugs for Company to Selectively Acquire



Research Center to continue to provide rich pipeline of drugs for Company to selectively pick and choose from. Unsuccessful development of acquired drugs will be refunded

Product	Indication(s)	Current Clinical Trial Stage	Preliminary Results	Product Highlights
Morphothiadine Mesylate	<ul style="list-style-type: none"> Hepatitis B 	Clinical phase IIb	<ul style="list-style-type: none"> Highly effective in the treatment of DNA virus infection, accompanied by a decline in HBsAg and HbeAg Much higher than efficacy of Entecavir in treatment of HBeAg-positive HBV 	<ul style="list-style-type: none"> First in class, global leadership; implying a potential target indispensable for treatment of Hepatitis B
Ningetinib Tosylate	<ul style="list-style-type: none"> Non-small-cell lung carcinoma Acute myeloid leukemia Renal cell cancer 	Clinical phase Ib/IIa	<ul style="list-style-type: none"> A Disease Control Rate (DCR) of 80% 	<ul style="list-style-type: none"> Significant efficacy shown in patients with a T790M-negative result in T790M mutation test
Lerlotinib Mesylate	<ul style="list-style-type: none"> Esophageal cancer 	Clinical phase Ib/IIa	<ul style="list-style-type: none"> Safe and well-tolerated result in Phase I clinical trial with dose escalation methods, less adverse events than peer drugs launched that share the same therapeutic target Priority given to conduct clinical trials on esophageal cancer patients in Phase II which started in 9 centers 	<ul style="list-style-type: none"> Due to no drugs launched for targeted therapy of esophageal cancer, Lerlotinib is expected to work as a new therapy method
Rongliflozin L- Pyroglutamic Acid	<ul style="list-style-type: none"> Endocrine and metabolism 	Clinical phase Ib/IIa	<ul style="list-style-type: none"> Safe result in Phase Ib clinical trial without occurrence of serious adverse events (SAE) and hypoglycemia 	<ul style="list-style-type: none"> Significant improvement of blood sugar level in diabetic cases at preclinical stage without hypoglycemia events, with regulation of lipid metabolism, long-term use provides protective effects on the pancreas

Rich Source of New Drugs for Company to Selectively Acquire (Cont'd)



The recently announced purchase of six generic drugs, on the theme of “overseas approved drugs”, is part of the Company’s effort to diversify product portfolio

Product	Indication(s)	Approval Timing	Domestic Target	Status of Consistency Evaluation	Market Size (RMB mm)	Remarks
Clarithromycin Sustained Release Tablets	Macrolide antibiotic	Approved	<ul style="list-style-type: none"> The first to pass consistency evaluation 	<ul style="list-style-type: none"> Passed consistency evaluation 	400	<ul style="list-style-type: none"> From Europe to China
Levofloxacin Tablets	Quinolone antibiotic	2018	<ul style="list-style-type: none"> The first to pass consistency evaluation 		700	<ul style="list-style-type: none"> From Europe to China
Clarithromycin Tablets	Macrolide antibiotic	2018	<ul style="list-style-type: none"> The first to pass consistency evaluation 		200	<ul style="list-style-type: none"> From Europe to China
Moxifloxacin Tablet	Quinolone antibiotic	Approved	<ul style="list-style-type: none"> The first to pass consistency evaluation 	<ul style="list-style-type: none"> Passed consistency evaluation 	370	<ul style="list-style-type: none"> From Europe to China
Olmesartan Medoxomil Tablets	Hypertension	2018	<ul style="list-style-type: none"> Among the first three to pass consistency evaluation (very likely to be the first) 		210 (20% CAGR in past 3 years)	<ul style="list-style-type: none"> From Europe to China
Esomeprazole Magnesium Enteric-coated Capsule	Stomach ulcer	Late 2018 or Early 2019	<ul style="list-style-type: none"> The first to pass consistency evaluation 		850	<ul style="list-style-type: none"> Approval obtained from FDA and EMA

Source: IMS

/05

Blackstone Strategic Investment & Partnership

Blackstone Strategic Investment Overview

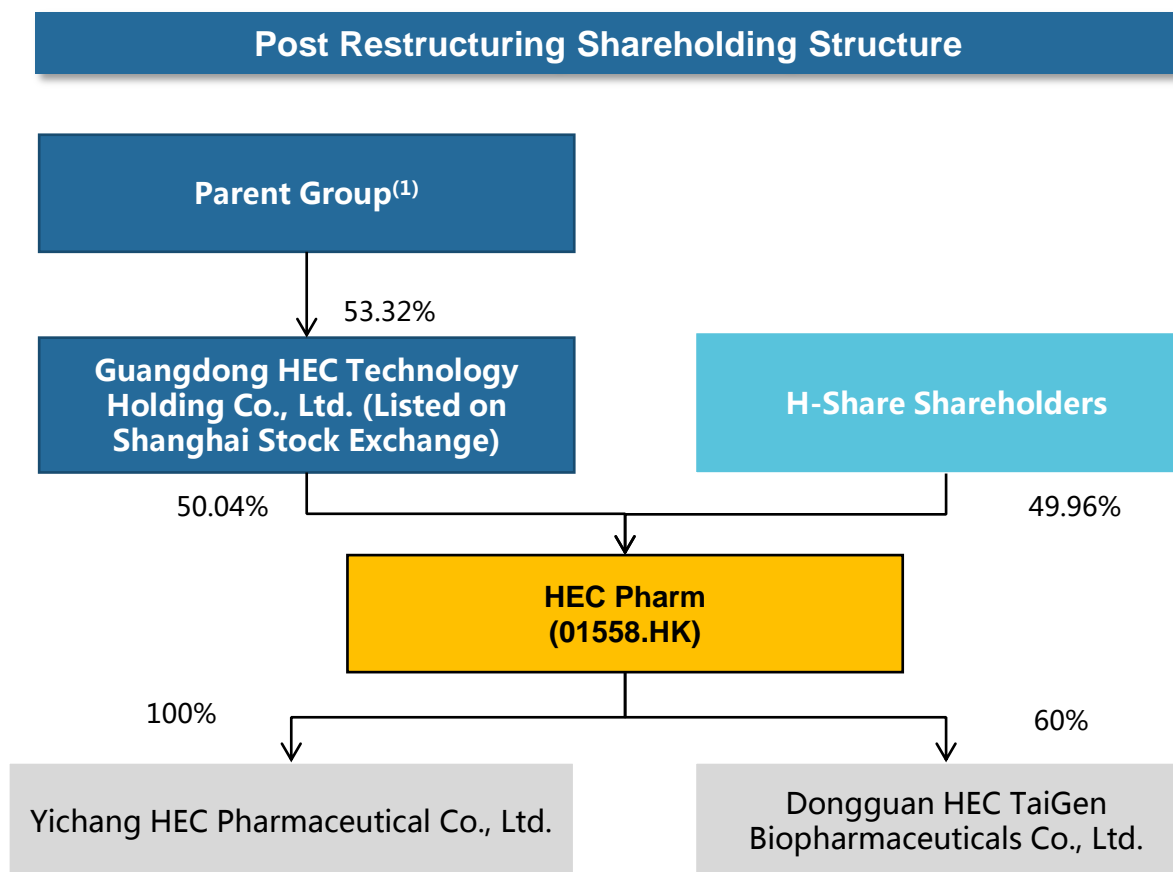
- 1 Long-term strategic investor to support the Company in its vision of becoming a leader in China's pharmaceutical industry and the go-to China partner for global pharmaceutical players
- 2 Attractive long-term funding to accelerate drug acquisitions and organic business investment in support of future business growth
- 3 Additional funding allows Company to pursue key growth initiatives while maintaining stable dividend payout to shareholders
- 4 Strategic partner to help drive implementation of global best practices and ensure continued value creation for Company shareholders. Key planned actions and initiatives include:
 - Strengthening corporate governance via appointment of Blackstone director and co-nomination of INED with senior pharmaceutical experience to the BOD
 - Establishing of strategic partnerships with global pharmaceutical players
 - Improving IR functions and capital markets communication to raise company profile
- 5 Establishment of Strategic Operating Committee and Drug Acquisition Committee to optimize the Company's strategic direction and governance to ensure value maximization for all public shareholders

/06

Appendix

Completion of Group Restructuring

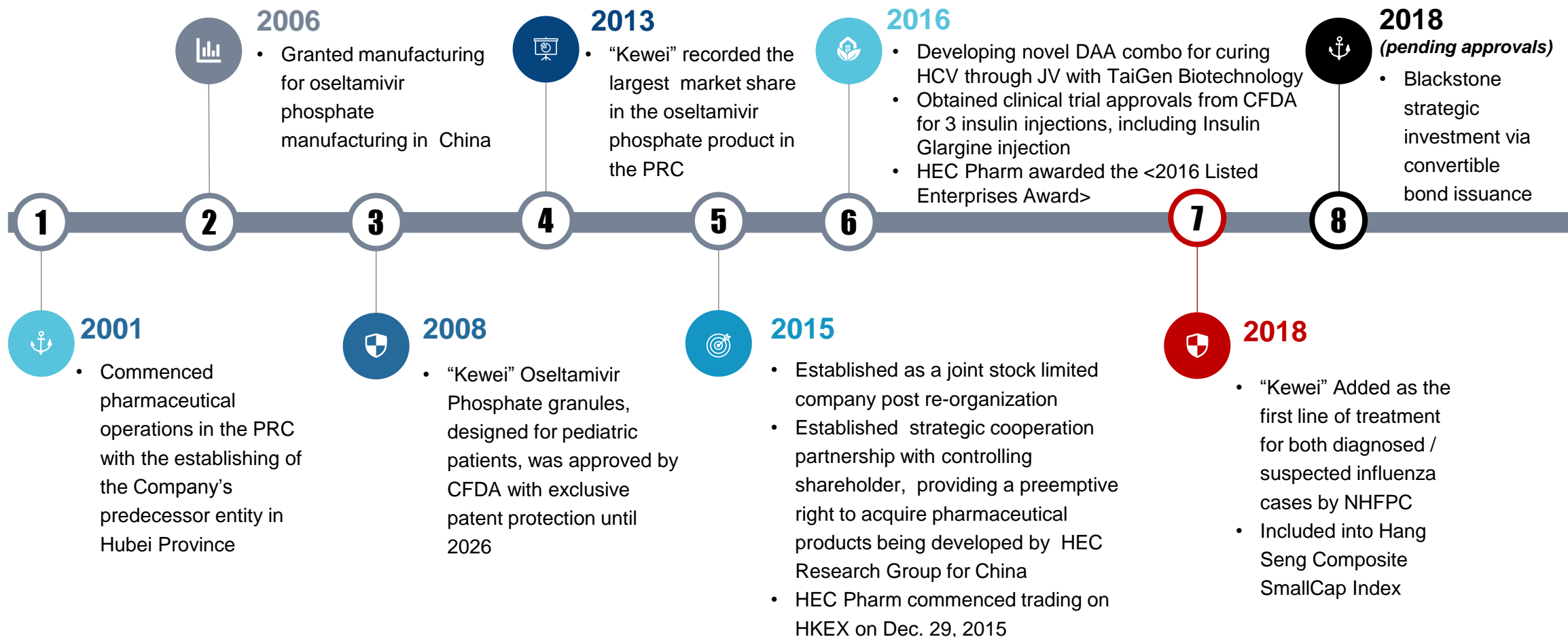
Company is Parent Group's sole pharmaceutical platform in China and now fully consolidated into the Parent Group



Note: (1) Shenzhen HEC Industrial Development Co., Ltd. and affiliates

HEC History and Milestones

Strategic investment by Blackstone represents a milestone and a new beginning for HEC



Senior Management Team



Mr. TANG Xinfa *Chairman and Non-Executive Director*

- Joined the Company in May 2015, and also serving as the Chief Officer of the State Key Laboratory of New Drug Research and Development for anti-virus
- Joined Shenzhen HEC Industrial in 2002, having served senior management positions at Sunshine Lake Pharma, Ruyuan HEC Pharma, Linzhi HEC Pharmaceutical Investment, and Dongguan HEC Research
- He has 15 years of management experience
- Received a master degree from Xiamen University in September 2002

Mr. JIANG Juncai *Executive Director and General Manager*

- Successively served as a researcher at the biochemistry division, a researcher and deputy head of the traditional Chinese medicine division and the deputy head of the zoological and botanical division of Sunshine Lake Pharma from July 2006 to May 2012
- Served as a director of Yidu HEC Industrial Development Co., Ltd. from March 2012 to May 2015
- He joined the Company serving as executive director in May 2015

Mr. CHEN Yangui *Executive Director, Business Unit Head*

- Joined Dongguan HEC Research in October 2005, and successively held several different managing positions in company
- Managing the sales department of finished products since 2013
- He joined the Company in May 2015 and has served as an executive Director since then

Mr. WANG Danjin *Executive Director, Deputy General Manager*

Mr. ZHU Qiaohong *Executive Director, Deputy General Manager*

Mr. LI Shuang *Deputy General Manager*

Mr. LEI Xiantong *CFO*

Mr. PAN Sanxiong *Secretary of the Board*

Thanks