



# 2018

**YiChang HEC ChangJiang Pharmaceutical Co., Ltd.**

Stock Code : 1558.HK



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# **Results Highlights**



# Business Highlights

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## **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)

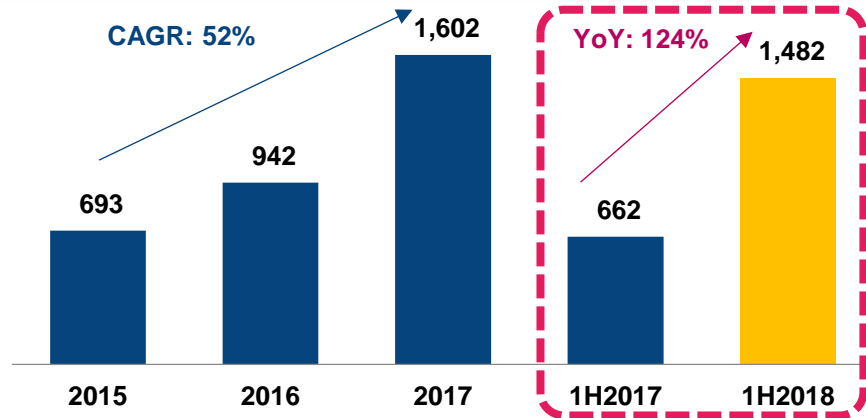
## **Blackstone investment as a long-term strategic partner to help accelerate business growth (pending shareholder approval)**



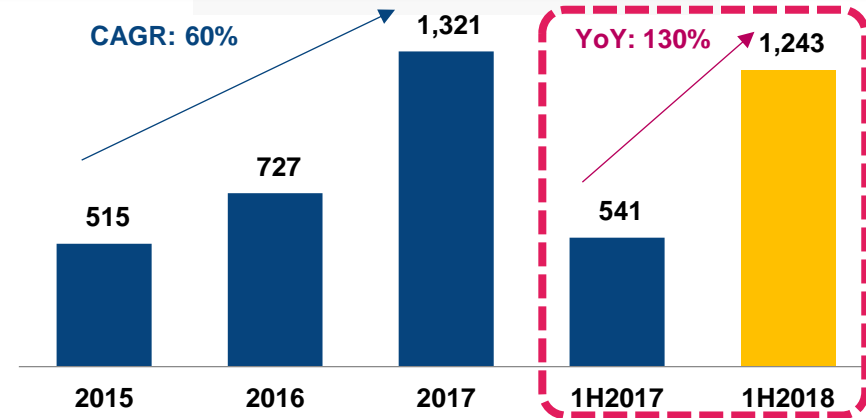
# 2018 Interim Financial Results Highlights

**Strong financial performance is achieved across the board**

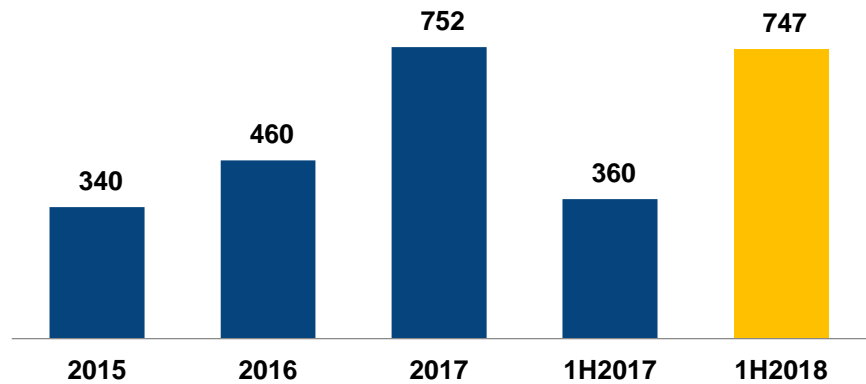
**Revenue (RMB millions)**



**Gross Profit (RMB millions)**



**Profit from Operations (RMB millions)**



**Net Profit (RMB millions) <sup>(1)</sup>**

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



# 2018 Interim Operational Highlights

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Kewei Market Share Within Oseltamivir

Kewei Granule Hospital Penetration (# Hospitals)

Kewei



# Blackstone Strategic Investment

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under management and a strong healthcare sector investment track record globally

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

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



# Financial Overview (Balance Sheet)

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

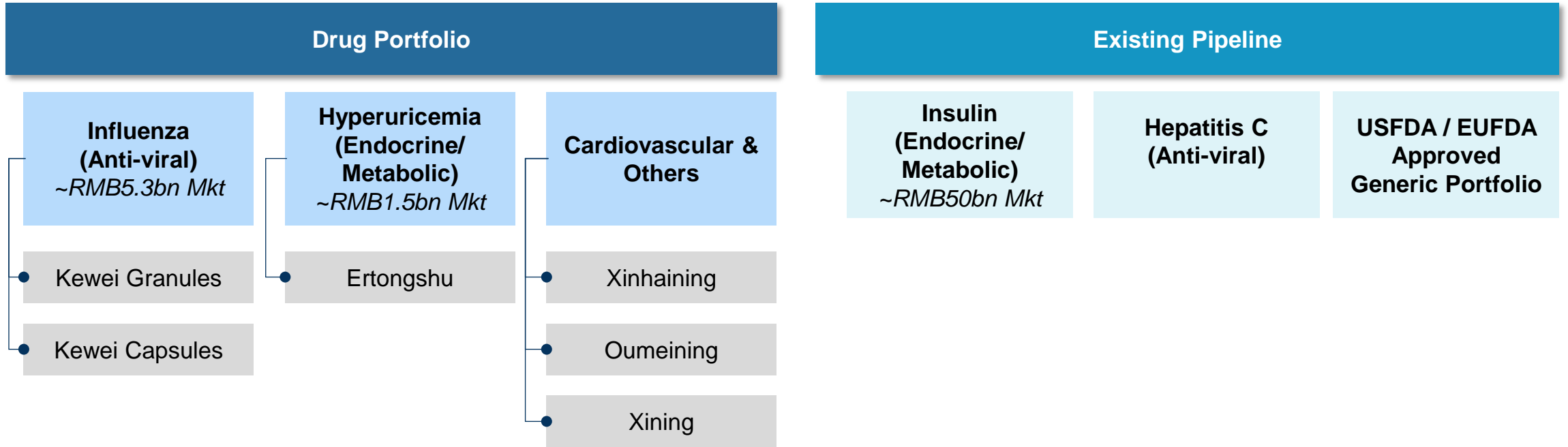


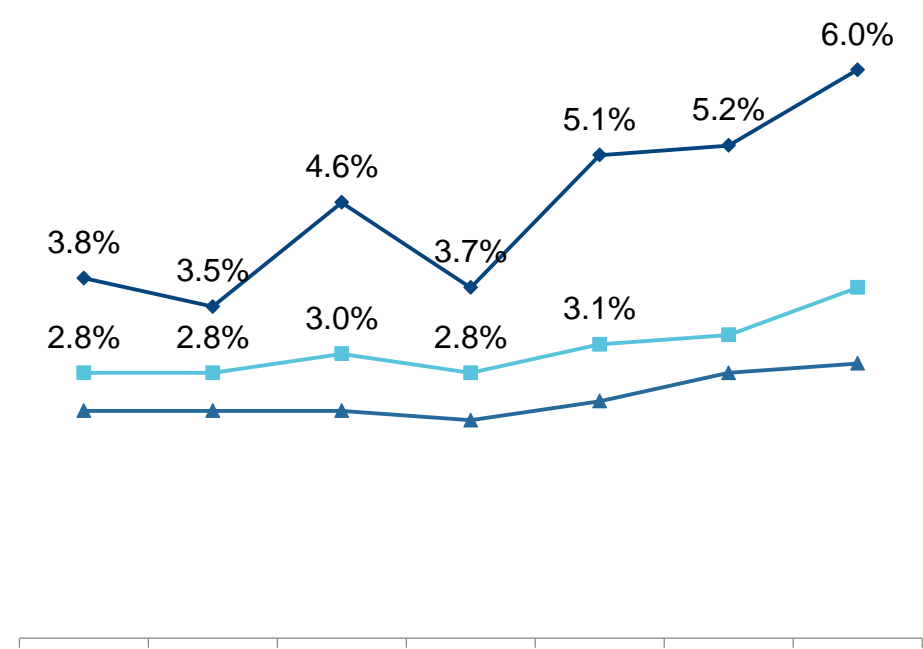
**/03**

# **Business Review**

# Portfolio & Pipeline Overview

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





From 2009, Kewei Capsules have been covered by national health insurance

Kewei granules, newly listed in 2017 NDRL, are the only pediatric chemical drug approach to the treatment of influenza

NHFPC: Recommended by NHFPC as **the first choice** medicine to treat H1N1 influenza (Swine Flu), as well as H7N9 influenza (Avian Flu)

In new influenza treatment guidelines published in 2018 by the NHFPC, Oseltamivir is the recommended first line treatment for influenza, **expanding prescription to suspected cases for high-risk patients / patients with severe symptoms, and specifically recommending granule form for children**

In 2001, original product appeared on the market

In 2006, Kewei Capsules appeared on the market

In 2008, Kewei Granule, **the unique** dosage form for children appeared on the market

Treatment of influenza A and B  
Prevention of influenza A and B  
Treatment and prevention of influenza in infants aged above **2 weeks**

WHO: Listed as an **“Essential Drug”** in the WHO Model List of Essential Drugs  
USCDC: Recommended as a key anti-viral treatment for influenza  
ECDC: Recommended for the treatment of influenza in Europe

# Influenza (Anti-viral)

## Kewei is the Top Oseltamivir Brand in China



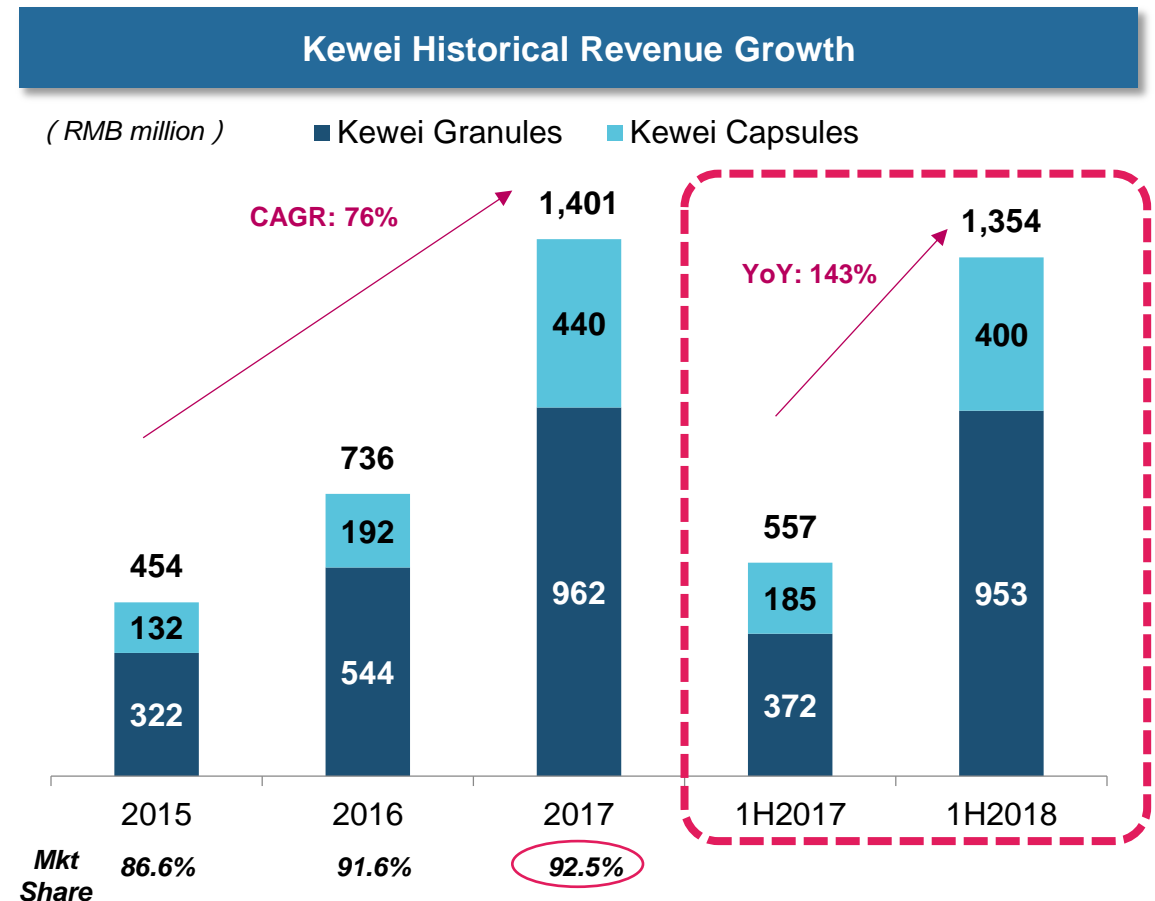
***Kewei is the preferred Oseltamivir brand across China, with market shares further strengthened post exit of only domestic competitor in 2017***

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**


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*



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

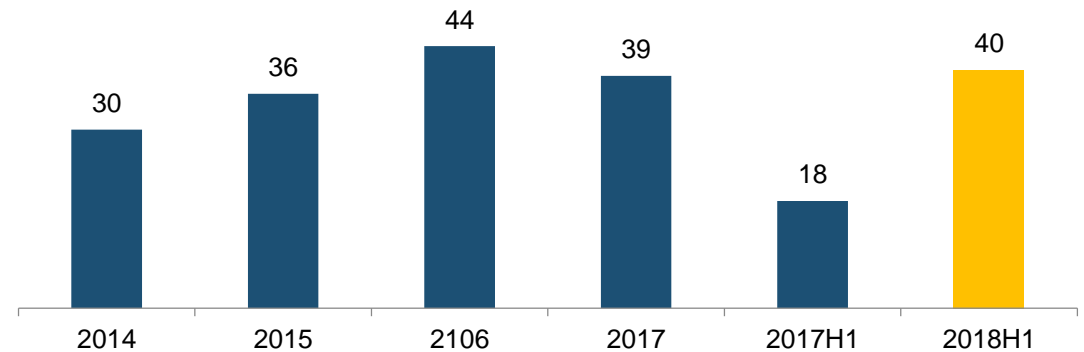
# Hyperuricemia (Endocrine / Metabolic)

## Strong Ertongshu Momentum

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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.





# Business Development Strategy

... expert ... long support for ... growth and driving ... 480 ... 2017

**China market** ... **Regions** (Guangzhou, Shanghai, ...)

... by organizing various academic publication activities and clinical studies, ... product penetration ac ... hos ... te ... market

# 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

## 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



Responsible for recruitment and management of 3



**/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	Clinical phase II SVR12 up to 100% Good safety and tolerance results	All-oral therapy Administered once daily for 12 weeks
Furaprevir	HCV	Clinical phase II	2020	Clinical phase II demonstrates good effectiveness and safety	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	Based on Phase I and III 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	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)

## The HEC Edge



### Insulin API's designed production capacity

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

### Insulin production capacity ramp0 08 Q E Tc[i] designed



### 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 C 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



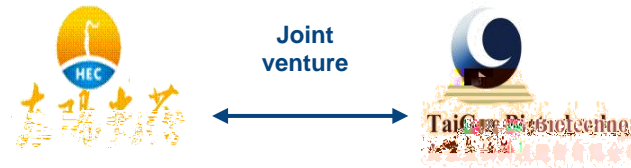
*Other DAAs projects currently in clinical development stage*

Subject enrollment has been completed for the Phase-III clinical trial of Yimitasvir 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 Yimitasvir Phosphate + furaprevir **will end soon, and phase-III trial will start by year end**

Yimitasvir 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**



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

# Hepatitis C (Anti-viral)

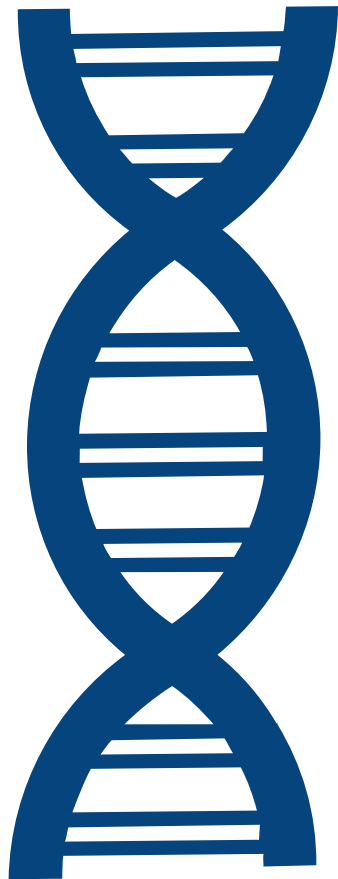
## The HEC Edge

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# 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 (國家千人計畫) and 1 (青年領軍人才)



## Rich pipeline of new drugs

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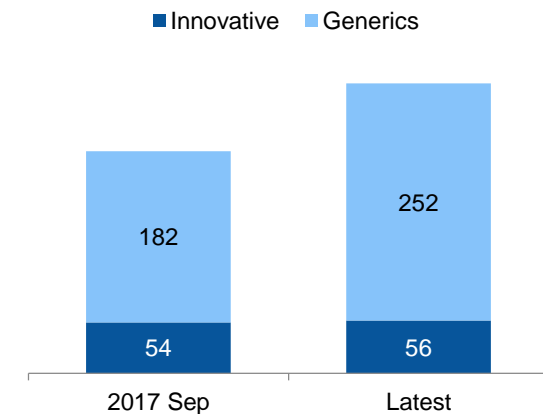
(國家新藥創制重大專項) In the 11<sup>th</sup>, the 12<sup>th</sup> and the 13<sup>th</sup> Five Several Medicines are anticipated to be the National Class 1.1 Innovative drugs



## Pre-emptive Rights

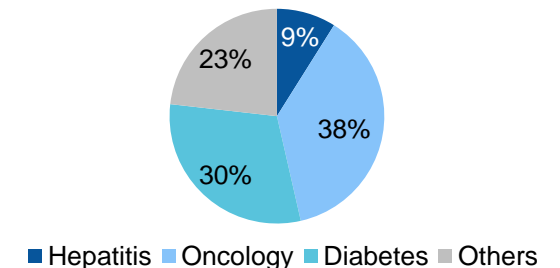
The Company has the pre-emptive right to purchase products from Research Center for China  
Drugs acquired but not successfully approved will be fully refunded

## 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
Morphothiadin Mesylate	Hepatitis B	Clinical phase IIb	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	First in class, global leadership; implying a potential target indispensable for treatment of Hepatitis B
Ninnetinib Tosylate	Non-small-cell lung carcinoma Acute myeloid leukemia Renal cell cancer	Clinical phase Ib/IIa	A Disease Control Rate (DCR) of 80%	Significant efficacy shown in patients with a T790M-negative result in T790M mutation test
Lerlotinib Mesylate	Esophageal cancer	Clinical phase Ib/IIa	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	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	Endocrine and metabolism	Clinical phase Ib/IIa	Safe result in Phase Ib clinical trial without occurrence of serious adverse events (SAE) and hypoglycemia	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





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**Blackstone Strategic  
Investment & Partnership**

# Blackstone Strategic Investment Overview

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Long-



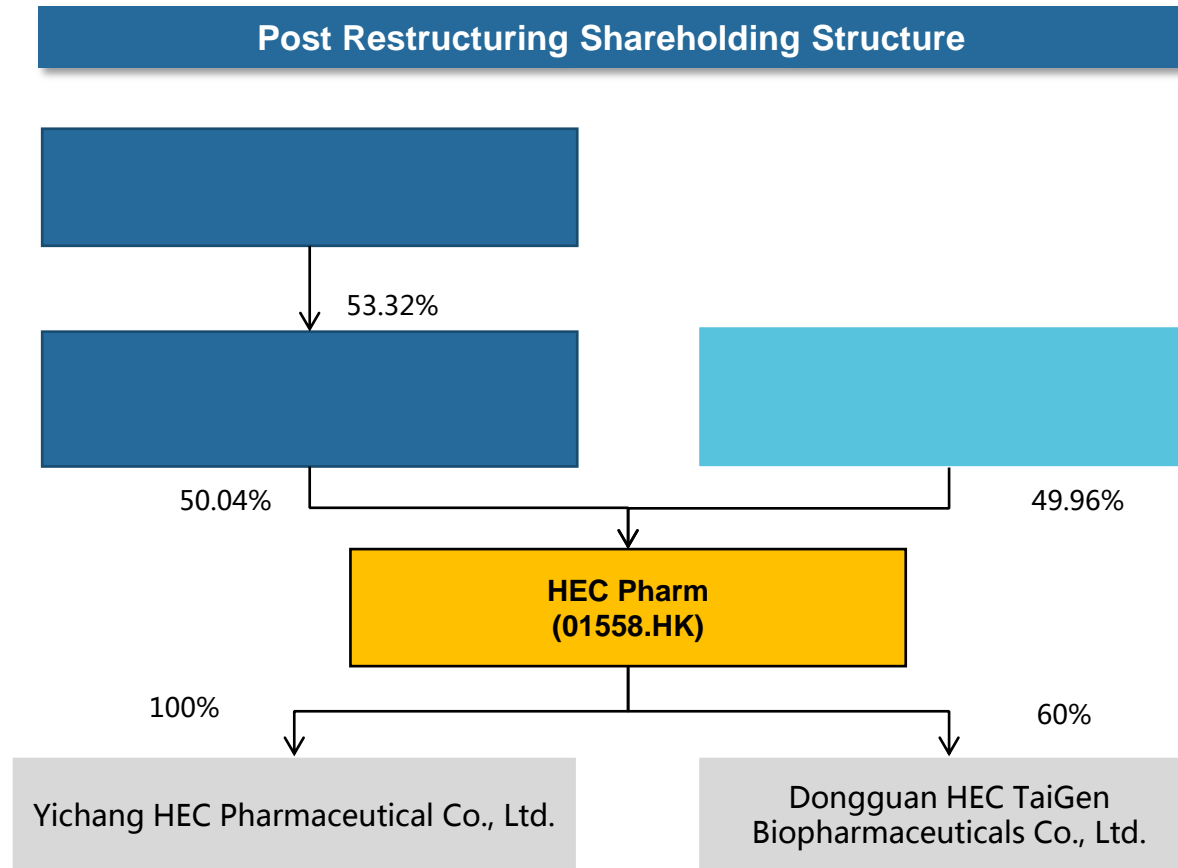
**/06**

**Appendix**



# Completion of Group Restructuring

*into the Parent Group*



# HEC History and Milestones



# Senior Management Team

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## **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

