Collaboration-based New Drug R&D Strategy

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President of R&D and Head of International Business

Yabao Pharma Group (China)

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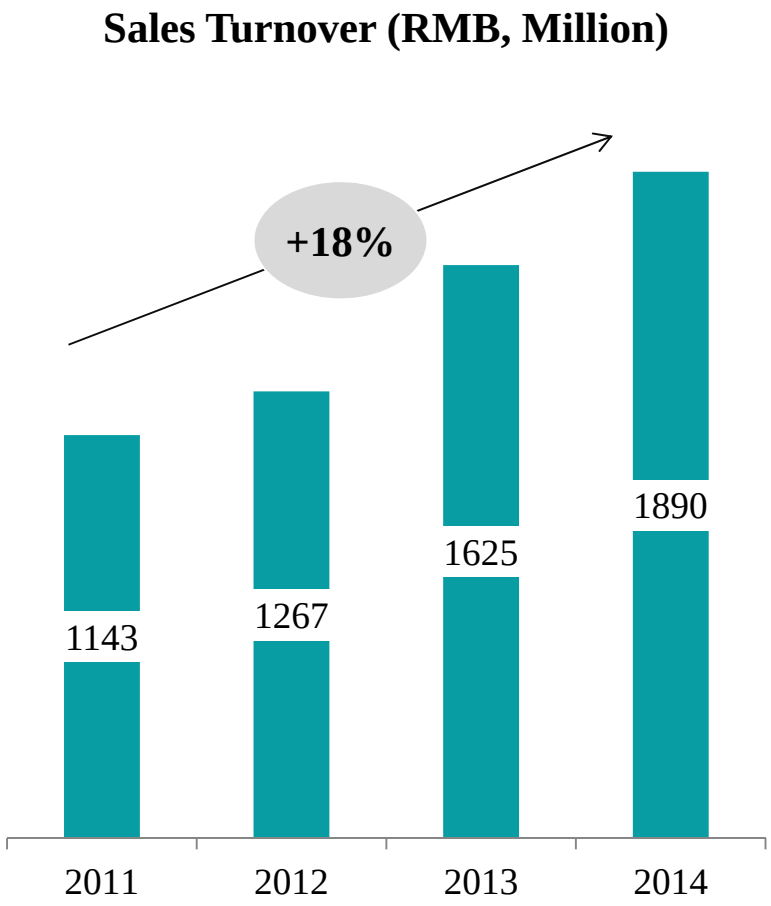
Yabao Pharma Group Snapshot

- A traditional mid-sized Chinese pharmaceutical company, established in 1978
- Publicly listed on Shanghai Stock Exchange (2002)
- Strong marketing & sales capabilities with excellent growth in revenue and profit
- A leader in GMP manufacturing
- Top-tier R&D capabilities in China, with excellent product development and international collaboration experience
- Current number of employees: ~5,000

Sales Turnover



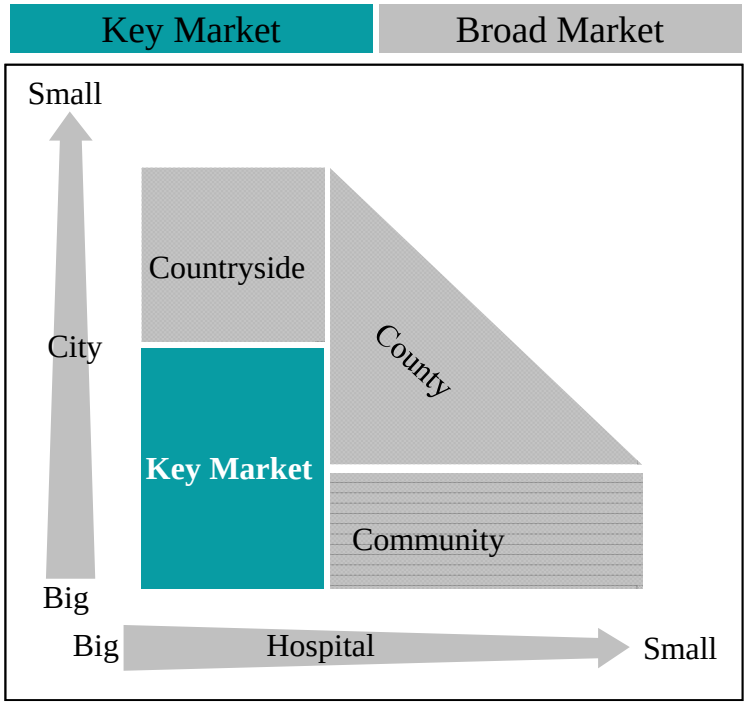
Sales Turnover

- Expected to exceed RMB 2 billion in 2015, representing a five-year CAGR of over 15%

Net Profit

- RMB 170 million in 2014
- Estimated to increase 45%-55% in H1 2015

Marketing Coverage



Key Market

- Growth driver of sales, aggressive expansion in progress
- Focus on medical education and establishing brands and loyalty

Broad Market

- Currently accounting for majority of total sales
- Well managed nationwide distribution network
- Continue to maintain strong presence with both broad coverage and deep penetration

Manufacturing Overview

- **A leader in GMP manufacturing in China**
  - Over 30 years experience
  - 8 manufacturing plants, covering API, finished products and plastic container manufacturing capabilities
  - Oral, injectable and topical formulations for finished products

- **cGMP capabilities**
  - 2 finished product manufacturing plants approved by US FDA and EU, respectively
  - 6 API and 1 plastic container manufacturing lines established in accordance with EU-GMP and/or FDA-GMP

R&D Highlights

- **Ranked in the top twenty within China's pharmaceutical industry recently***
- **Growing R&D organization with 2016 R&D budget of $32 million, ~10% of Yabao's total revenues in 2015**
- **Pipeline of 10 products in phase I, II or III, including an innovative biologic drug candidate**
- **Strong in regulatory affairs: Over 300 drug approvals including generics, new formulations, and traditional Chinese medicines**

*China National Pharmaceutical Industry Information Center, July, 2013, 2014 and 2015

Corporate Strategy

- **Yabao was and is a domestic generics leader in China.**

- **Advancing the pharmaceutical capabilities through innovation and internationalization.**
  - Pursue international collaboration on development of innovative drug candidates and approved drugs from the West
  - Pursue commercial collaboration with Western companies on their drugs approved in China
  - Expand Yabao's commercial reach to the Western and other international markets through new generic product development

- **Change is being driven by Yabao's Chairman and top leadership. The necessary financial and human investments are occurring to ensure that Yabao achieves its innovation and growth goals.**

Why Is Innovative R&D Collaboration-based?

- **New drug R&D (particularly discovery) capacity in China is much lower than in the West:**
  - ✓ To initiate new R&D programs: License-in from the West for co-development
- **Capacity building takes longer time for Chinese companies than in the West**
  - ✓ To progress R&D programs: Collaboration with partners and other leading academic scientists, and CROs
- **Thus, collaboration is the key currently when capacity is not adequately high, and to our capacity building**

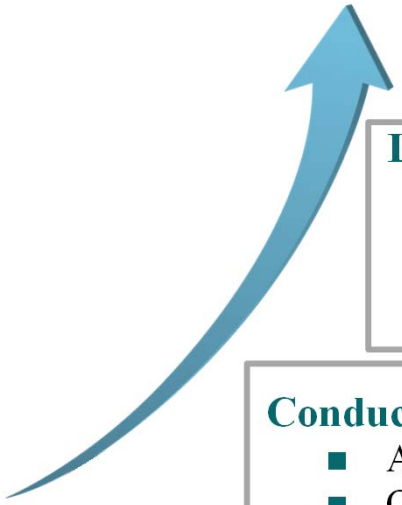
Establishing an Innovative Subsidiary

Vision and Mission: Developing break-through innovative medicines with global development potential through international collaboration

Suzhou Yabao Pharmaceutical R&D Company

- **A subsidiary of Yabao Pharm Group, focusing on innovative R&D**
- **China-based but globe-oriented**
- **Newly founded in April 2014, located in Suzhou bioBay, China**
- **~30 employees; active expansion in progress**
- **Leadership team with rich R&D experience in BOTH US and China**

SuZhou Yabao's Business Model



Becoming a most innovative China-based, overseas-listed biotech

Late-stage Development and Commercialization

- Out-license global rights to overseas larger companies (or development resumed by larger partners)
- Continue to (co)-develop and (co)-commercialize in China (or out-license China rights to other Chinese pharmas)

Conducting Early Development in China

- Achieve clinical PoC under global GxP standards
- Open and flexible to collaborate with CROs, academic researchers, governments, and investors

Establishing Collaboration on Early-Stage Drug Candidates

- "Co-development" collaboration with world-class partners, large or small
- Yabao shares global rights, more or less

Advantages of Our Co-development Model

	Traditional License-in	Our Model
Licensed	China Right	China Right + A Share Of Global Right
License Fees	Large Upfront And Milestones	Minimal Upfront And Low Milestones
Early Development	❖ By Licensee Alone ❖ Under China Standards	❖ Jointly With Partner ❖ Under Global Standards With Data Usable Globally And Shared Freely
Full Development	Same As Early Development	Partner Initiates Global Development And Pays Milestones
Launch	Royalties Paid To Licensor	❖ We Have China Right And Pay Royalties To Partner ❖ Partner Pays Global Royalties To Us

Capacity Building: The Team

- **Rich R&D success experience in both US and China**

- **Leaders in various scientific areas, and project managers**

The Team (1/7)

Peng Wang, Ph.D., President of R&D and CSO

- **1990, Ph.D. in Pharmaceutical Life Science from the University of Tokyo**
- **1990 - 2008, Schering-Plough Discovery Research, Research Fellow**
  - ✓ Major contribution to discovery and early development of 9 development candidates
- **2008 - 2009, WuXi AppTech, Corporate VP and Head of Discovery Biology**
  - ✓ Business development: established collaboration on >30 projects with >10 Western companies
- **2009 - 2013, Simcere Pharmaceutical Group, Corporate VP and CSO**
  - ✓ International collaboration: 5 deals signed
  - ✓ Innovative R&D in China: 7 INDs approved, with the most advanced program in phase 3 and completing a phase 1 in Australia
- **2013 - current, Yabao Pharmaceutical Group, Corporate VP, President of R&D and Head of International Business**
  - ✓ International collaboration: 8 deals signed
  - ✓ Innovative R&D in China for the world, with 1 IND filed

The Team (2/7)

Mr. Feng Wang, *Head of Clinical Development and Regulatory Affairs*

- Pharmacy (Shandong Medical University) and medical (Wannan Medical College) degrees
- 21 Years with the General Hospital of Chinese Air Force as Head of Clinical Pharmacology Department and Vice Chair of Clinical Trial Department (82-03)
- Head of R&D, Shanghai Lvgu Group (03-07)
- Head of Clinical Development at Simcere Pharma Group (07-14)
- Led all clinical development programs, including programs in collaboration with multinational major pharmas under global standards ("in China for Global")

Dr. Lin Zhu, *Head of Pharmacology, Toxicology and ADME/PK*

- Ph.D. in Biotechnology from Tsinghua University
- Head of Pharmacology and Toxicology at Simcere Pharma Group (08-13)
- Led preclinical development and obtained IND approval of 7 innovative drug candidates

The Team (3/7)

Ms. Yonge Zhang, *Head of Small Molecule Pharmaceutical Development*

- BS in Pharmacy from China Pharmaceutical University
- Principal Investigator and head of Formulation Development, Jiangsu Hengrui/Hansoh (97-11)
- Head of Pharmaceutical and Analytical Development and Regulatory Affairs at Tianma Pharmaceuticals (11-13)
- Head of R&D at Xudong Haipu Pharmaceuticals (13-14)
- Led development and filing of 54 ANDAs

Dr. Yan Xia, *Head of Medicinal Chemistry (Consultant)*

- Ph.D. in Organic Chemistry from University of Pittsburgh, post-doctoral training at NIH
- Former Senior Principal Scientist with 21-year medicinal chemistry experience at Schering-Plough and Merck
- Major contribution to discovery and early development of 8 development candidates (including 1 launched)
- Published about 80 papers and patent applications

The Team (4/7)

Dr. Yuanyuan Xu, *Head of Discovery Biology*

- Ph.D. from Tsinghua University, Postdoctoral Fellow at Yale School of Medicine
- Associate Research Scientist and Project Leader at Yale Smillow Cancer Center (2010-2014)
- Published several original research articles in the leading journals, including Nature, Mol Cell, PNAS USA, J. Virol, etc.

Dr. Zhongping Fu, *Director of Biologics Development*

- Ph.D. from Macao Science and Technology University
- Head of Biologics Analytical Development and Quality Control at Simcere Pharma Group (2008-2015)
- Responsible for analytical development and quality control for 3 therapeutic antibody programs (1 in phase I and other 2 filed as INDs), and responsible for purification for one of the programs

The Team (5/7)

Mr. Lei Yang, *Director of Project Management*

- BS and MS from Zhongnan University
- 6 years experience in drug discovery and early development, former protein kinase team leader at Genscript and head of i*n vitro* pharmacology and project manager (the BMS-Simcere collaboration program) at Simcere Pharma (2007-2011)

Dr. Xiarui Dou, *Chief Patent Counsel*

- Ph.D. in Pharmacology from Beijing Traditional Chinese Medicine University
- 6 years patent experience with large pharma and 2 years with law firm
- Certified lawyer and patent attorney

Ms. Weina Liu, *Director of Business Development*

- MS in Pharmaceutics from China Pharmaceutical University
- Former business development associate with Simcere Pharma
- Major contributions to 8 international collaboration deals

The Team (6/7)

Ms. Karen LaRochelle, *BD and Transactions Consultant*

- 20 years of Business Development, including negotiation and contracting, with the international pharmaceutical company Bristol-Myers Squibb as Global Business Development Executive Director and Head of China BD
- Execution of over 40 collaborations including over 10 China-West announced partnerships
- MBA from Columbia University

Ms. Angela Haddock, *Contract Law Consultant*

- 15 years experience with international pharmaceutical company and law firms, including 7 years with Bristol-Myers Squibb as Senior Corporate Counsel on licensing, R&D, commercial and manufacturing deals
- Drafted and negotiated numerous biopharmaceutical collaborations,including over 10 China-West announced partnerships
- JD from Fordham University, licensed attorney in New York and New Jersey

The Team (7/7)

Scientific advisors for specific targets, indications, technologies, etc.

- **Diabetes Drug Development:**
  - ✓ Dr. Simeon Taylor, former head of CV and metabolic disease therapy area at BMS
  - ✓ Dr. John Amatruda, former SVP and Franchise Head of Diabetes & Obesity at Merck

International Collaboration Deals for Innovative R&D Programs

H1 2014

- Glucokinase activator, Diabetes
- PLK/PI3K inhibitor, Oncology

H2 2014

- Kinase inhibitor for Parkinson's disease
- A recombinant protein drug candidate, Sepsis

H2 2015

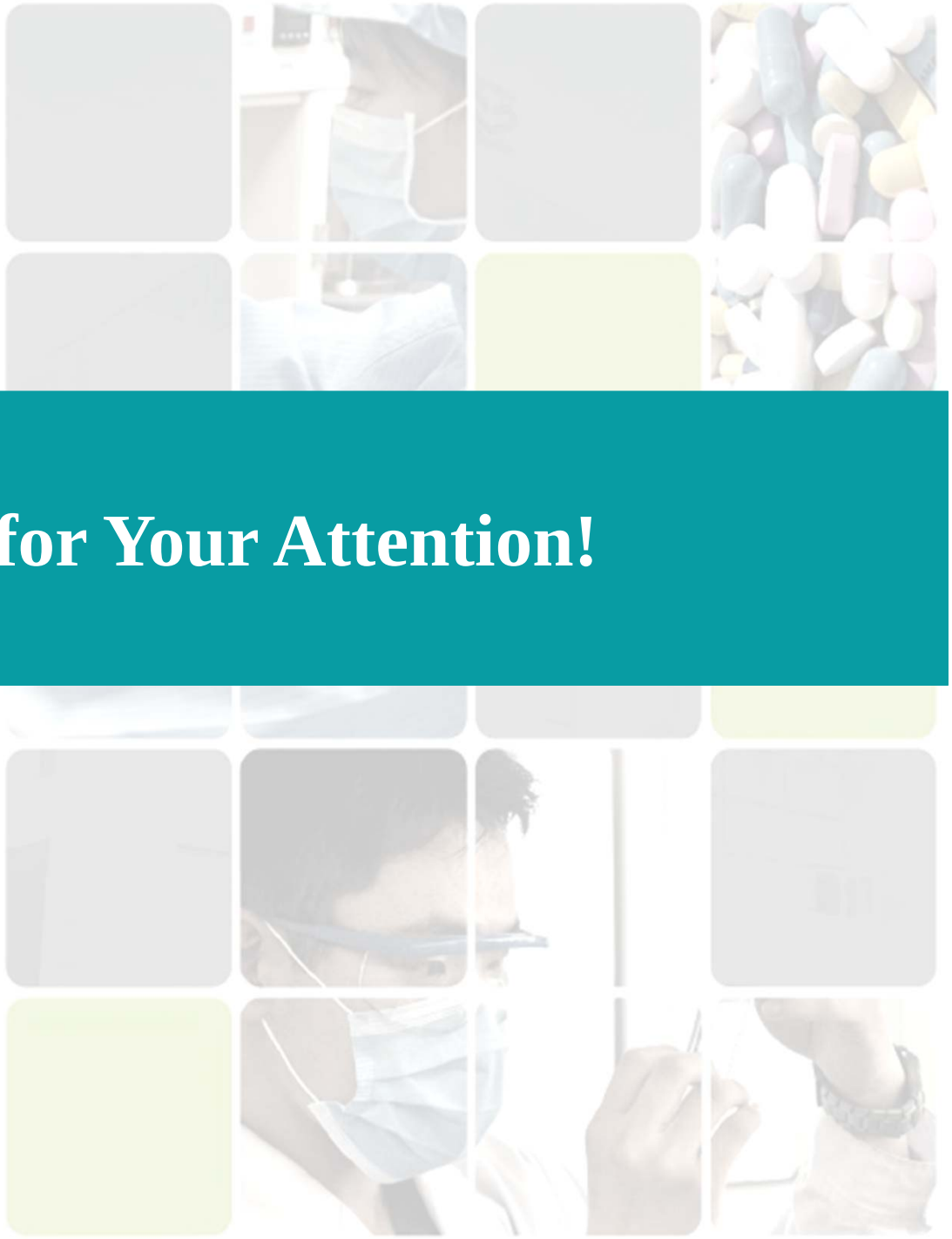
- A peptide drug candidate, Stroke
- SGLT1 inhibitors, Diabetes
- Joint Drug Discovery Lab, Undisclosed oncology target

Yabao's Commitment to Partners

- **Increasing emphasis on R&D and innovation, with continuous improvement in R&D capacity building**

- **Collaboration as a major corporate strategy**

- **Highest standards of compliance, transparency and quality in China, as demonstrated by our international collaboration deals**



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