Technology Transfer from the perspective of Sinovac
Sinovac Biotech Co Ltd (Nasdaq GM:SVA)

- **Beijing Headquarters**: Healive / Bilive annual capacity - 20million doses; Flu: 8million doses
- **Changping**: Plan to establish a new production line for EV71 and a new filling and packaging line in compliance with WHO standards
- **Sinovac Dalian**: Plan to establish production plants for live attenuated vaccine and human rabies vaccine in Dalian
- **Tangshan Yian**: Plan to establish a production plant for animal rabies vaccine
Products and R & D

Sinovac is a fully integrated, profitable China-based biopharmaceutical company that focuses on researching, developing, manufacturing and commercializing vaccine products for infectious diseases

Key marketed products:

- **Healive**: leading inactivated hepatitis A vaccine in China
- **Bilive**: first combined inactivated hepatitis A and B vaccine developed in China
- **Anflu**: split influenza vaccine
- **Panflu**: only approved H5N1 vaccine in China
- **Panflu.1**: first vaccine approved for H1N1 globally
- **Rabies** vaccine for animal

Key pipeline candidates:

- **Pneumococcal Conjugate Vaccine, EV71 (Hand, Foot & Mouth Disease), Rota Virus Vaccine, Japanese Encephalitis, Human Rabies vaccine, Hib and Epidemic Meningitis, Chickenpox**, **Mumps** & Rubella, **Universal Flu vaccine**.

Founded in 2001 and headquartered in Beijing
Compelling Top and Bottom Line Growth

- **Revenue**

- **Gross Profit and Margin\(^1\)**
  - Margins: 72%, 81%, 78%, 78%

- **Operating Income and Margin**
  - Margins: 2.88%, 13.47%, 40.17%, 33.51%

- **Net Profit and Margin**
  - Margins: $9.5, $7.85, $8.01, $19.85

Note: 1. Gross profit margin is prior to deduction of depreciation of land use rights and amortization of licenses and permits

\(\text{sinovac}^{\text{TM}}\)
**Healive (Hep A) Vaccine**

- 2003: 500
- 2004: 1,000
- 2005: 1,300
- 2006: 2,600
- 2007: 5,100
- 2008: 8,800
- 2009: 6,900

**2009 Healive Market Share**

- Kunming: 29%
- Sinovac: 23%
- Chuangcun: 16%
- Pukang: 13%
- GSK: 11%
- Chuangsheng: 7%
- Berna: 1%

**Anflu (Seasonal Influenza) Vaccine**

- 2006: 70
- 2007: 1,528
- 2008: 1,454
- 2009: 5,112

**2009 Anflu Market Share**

- Others*: 7%
- Yalifeng: 8%
- Shanghai: 8%
- Changsheng: 8%
- Sanofi: 15%
- Hualan: 13%
- Sinovac: 11%
- Tianyuan: 11%
- Yanshen: 10%
- GSK: 9%

Others include: Novartis, Berna, Solvay, Tiantan, Changhun, Lanzhou
Attractive Healthcare Industry Trends In China

Favorable Macro and Demographic Trends Will Continue to Drive China’s Pharma Industry

World’s largest population...

...increasing disposable income

...and increasing healthcare spending

Chinese Government Has Announced a Healthcare Reform Plan Valued at US$125 billion

The goal is to establish a basic, universal healthcare framework by establishing:

- the public health services system
- the public medical insurance system
- the public healthcare delivery system
- the drug supply system

This system focuses on preventing diseases and is designed to provide free services such as immunizations, regular physical check-ups, prevention of infectious or chronic diseases and other preventive public health services.

The government will establish facilities or install equipment to facilitate vaccination, which will continue to drive the demand for vaccines.

Source: 2009 Healthcare Reform (April 6, 2009)
China’s Vaccine Market Is Poised for Strong Growth

- Increasing Government Spending on Expanded Program of Immunization (EPI)
  - Vaccine coverage expanded to preventing 15 diseases from 7.

- 40+ manufacturers
- RMB5.2bn (US$762m) market size
  - Public market: RMB2.2bn (US$322m)
  - Private market RMB3.0bn (US$440m)
- National Immunization Plan covers 15 types of diseases
- Industry Consolidation has started

- Strong Government Support of Disease Prevention
  ~ $800mil spending on vaccine purchase in 2009, including the purchase of H1N1 vaccine.

- Recent Outbreaks of Newly Emerging Pandemic Diseases – SARS, H5N1, H1N1 and EV71

- Industry Capacity Constraints Lead to Further Consolidation

...however, spending on pediatric vaccines is still significantly lower than developed countries

Source: Biopharmaceutical Industry Summit 2009 – Bacterin Day (Dec 10, 2009)
Growth Strategy

1. Develop more vaccines (available and new) that address the unmet medical needs
   - Against newly emerged diseases
   - To improve the quality profile of vaccines available in the market

2. Expand our capacity to meet the needs of the growing Chinese market and other geographic markets

3. Keep improving quality system and meet international standards

4. iMaximize sales of our products within the Chinese market and expand overseas markets

5. Seek international collaboration on R&D, industrialization, and commercialization
Experienced and Committed Management Team

Board of Directors

- Understand international business rules
- Have extensive experience in capital investment
- Have experience in internal control and compliance
- Experience in corporate governance

Management Team

- Familiar with Chinese disease prevention management system and decision making process
- Understand the demand of Chinese vaccine industry
- Influential in China’s vaccine industry
- Familiar with the rules and regulations of pharmaceutical products in China
- Successful experience of achieving high growth
- Obtain trust and support from government
Regulatory Timeline

Understand the Chinese SFDA requirement of licensing vaccine products

Proven Capabilities

- To register the products with SFDA effectively:
  - Understand the regulation
  - Well prepared documentation
  - Smooth communication with experts and officials

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Highlights</th>
<th>Lab-&gt;Mrk</th>
<th>1993</th>
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<tbody>
<tr>
<td>Healive</td>
<td>1st inactivated hepatitis A vaccine developed &amp; marketed in China</td>
<td>8yrs</td>
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<td>Bilive</td>
<td>1st combined inactivated hepatitis A and B vaccine developed and marketed in China</td>
<td>7yrs</td>
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<tr>
<td>Anflu</td>
<td>With no preservatives</td>
<td>7yrs</td>
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<td>SARS²</td>
<td>1st to complete the Phase I clinical trial</td>
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<tr>
<td>Panflu</td>
<td>1st and only approved vaccine available in China against H5N1</td>
<td>5yrs</td>
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<tr>
<td>Panflu.1</td>
<td>World’s 1st approved H1N1 vaccine</td>
<td>87 days</td>
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Source: Company filings, NICPBP

Notes:
1. Based on NICPBP’s lot release records – volume based market share
2. Phase I clinical trial was completed in December 2004. As the SARS epidemic has subsided, the Company currently is not proceeding with further clinical trials. However, should another outbreak occur in the future, the Company believes it can rapidly initiate Phase II and III trials.
Sales, Marketing and Distribution

- We sell products directly to CDCs which enables us to better control the supply chain and gain deeper understanding of the end market.

- Network coverage across China (except Tibet)
  - ~71% city level CDCs
  - ~44% of county level CDCs

- Expertise not only on pediatric market, but also adult market

- Maintaining the leading position not only in top tier cities but second tier cities.
Government Support

An established synergy:

- Creation of interactive network with both central, Beijing and other provincial government organizations.
- Participation on 13 national and 16 Beijing research programs since 2001
- Benefit from favourable policies on HR, investment, taxation, government procurement and infrastructure dedicated to local biopharmaceutical leaders

…and Sinovac is willing and ready to share it with our future partners
Thanks for your great work on vaccines. We can partner to make sure even more children get them!

--Bill Gates
Thanks
Changping Vaccine Production Center

Address: No. 15, Zhi Tong Road, Changping Science Park, Changping District, Beijing
Land Area: 29,000 square meters
Building Area: 32,000 square meters
Sinovac (Dalian) Vaccine Technology Co., Ltd. (Sinovac Dalian)

Address: No. 36, 2nd Road, DD Port, Economic and Technical Development Zone, Dalian 116620, China

Land Area: 95,000 square meters
Building Area: 20,000 square meters

- Submitted Mumps vaccine clinical trial application to SFDA
- Upgrading production
- R&D projects: rabies, chickenpox, rotavirus and rubella
- Seeking international collaboration opportunities for MMR vaccine
Tangshan Yi’an – Animal Vaccine Production Center

GMP production line construction on animal rabies vaccine

Address: No. 120, Huoju Road, Hi-tech development Area, Tangshan City
Land Area: 13,500 square meters
Building Area: 3,780 square meters
Office Area: 16,700 square meters
Production Area: 32,200 square meters
Sinovac is open and ready to cooperate with any international partner to do the Biotechnology transfer.