

05 Oct 2022 | Interviews

Behind The First Inhaled COVID Vaccine: Chinese-Language CEO Podcast With CanSino's Xuefeng Yu

Plus: Trials In Emerging Markets, Overseas Collaborations

by **Brian Yang**

After securing the first approval globally for an inhaled COVID-19 vaccine, Chinese biotech CanSino CEO Xuefeng Yu sat down with *Scrip* in this Chinese-language interview to share his views on vaccine development and market opportunities in China and elsewhere.

[*CanSino Biologics Inc.*](#)'s co-founder and CEO Xuefeng Yu sits down with *Scrip* in the first Chinese-language edition of the Biotech CEO Podcast.

Yu has years of experience working at multinational vaccine group [*Sanofi Pasteur*](#) and along with his co-founders transformed a vaccine start-up in Tianjin to a dual Hong Kong- and mainland-listed operation, driven in large part by China's determination to nurture homegrown vaccines to meet increasing demand for preventative care.

In September, the Chinese biotech scored a global first approval for its inhaled COVID-19 vaccine Convidecia Air as a booster, granted by the National Medical Products Administration (NMPA), and claimed it "can effectively induce comprehensive immune protection in response to SARS-CoV-2 after just one breath." (Also see "[China Approves World's First Inhaled COVID-19 Vaccine](#)" - *Scrip*, 9 Sep, 2022.)

In China, unlike drugs and other biologics, vaccines are approved by the NMPA but distributed by the China Center for Disease Control and Prevention and must go through vigorous batch-by-batch clearance by the Center for Food and Drug Inspections.

Despite the tight oversight, the sector has been riddled with scandals. In December 2013, 17 deaths and one case of anaphylactic shock were reported following hepatitis B vaccination for children under five. In 2016, a mother and daughter in Shandong province were found to have stored and distributed vaccines for over a decade without using proper cold storage facilities.

In 2019, [*Changchun Changsheng Life Sciences Limited*](#), a rising star in the country's bid to supply millions of people with domestically made vaccines, was found to have forged expiration dates for its rabies vaccines and faked good manufacturing practice records. (Also see "[*Vaccine Maker Bankruptcy Shows Regulatory Perils Of Business In China*](#)" - Pink Sheet, 13 Nov, 2019.)

Nevertheless, the sector has grown rapidly, representing one of the few bright spots amid the COVID-19 pandemic and driven by increasing awareness of preventative care in the vast country, where vaccines used to be deemed only for children. (

)

As income increases and preventative care gains popularity in China, the demand for vaccines for targets such as human papillomavirus will also grow, and in this case have been in short domestic supply for some time.

Leveraging Partnerships

As a start-up co-founded by three overseas returnees, CanSino has leveraged technologies and collaborations with overseas partners to develop its pipeline, which now comprises the approved product Ad5-Ebov against Ebola, Ad5-nCOV against coronavirus and two- and four-strain meningococcal vaccines.

During the interview, Yu also discussed the company's mRNA vaccine R&D, overseas collaborations, particularly with other emerging markets such as Chile, Mexico, Malaysia, and Indonesia, and why emerging markets could be the next big opportunity for Chinese vaccine makers.

In China, the development of COVID-19 vaccines has followed the government's plan to first have one available and then focus on sufficient supplies and good efficacy. It views mRNA as a novel technology needing a process to accept this type of vaccine.

[*Seizing The Day: How Coronavirus Breaks Then Makes Vaccine Makers In China*](#)

[*By*](#)

[*Brian Yang*](#) 24 Jun 2020

Amid fears of a second wave of coronavirus infections and the increasing dominance of state-owned enterprises, private vaccine makers in China are struggling to make the best of the outbreak, BravoVax CEO Ke Wu tells *Scrip* in an exclusive interview.

[*Read the full article here*](#)

The Tianjin-based company's COVID-19 vaccine, Ad5-nCoV, was developed in collaboration with an Oxford University spin-off and a Canadian partner and is based on more mature technology and provides better protection than inactivated virus-based vaccines.

While vaccines are essential tools, in a post-pandemic world demand will be less. To prepare for this as the outbreak becomes endemic, CanSino is also developing its mRNA technology for use in other areas.

Yu also sees commercial collaboration as important for the company in other markets such as Southeast Asia, Russia and Mexico, where there is large vaccine demand, and Chinese makers are well equipped to work in target emerging markets which share China's demographic characteristics, the executive noted.

But challenges still abound, including a lack of manufacturing expertise, good manufacturing practice compliance and strict regulatory testing requirements.

Timestamps:

- 0005: Introduction
- 0010: inhaled COVID-19 vaccine approval and its significance
- 0015: how CanSino developed Convidecia Air
- 0020: CanSino's other approved vaccines incl. Ad5-nEbov against Ebola and meningococcal vaccine
- 0025: Variants and fight against coronavirus in a post-pandemic world
- 0030: overseas collaboration and its importance to Chinese vaccine innovation
- 0035: emerging market collaboration and the need for training
- 0040: closing

[Click here to explore this interactive content online](#) ✎