

Wang Yinxiang – Chairman & Hu Shaojing – President, Jacobio Pharmaceutical, China



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Dr Wang Yinxiang, chairman; and Dr Hu Shaojing, President (R&D); of Jacobio Pharmaceutical; share the exciting story behind Jacobio's establishment in 2015, their ambition to become a global biopharma player with the plan of launching at least one IND every year and to open a research lab in Boston; and their perspectives on how the Chinese biopharma landscape has changed in the past 15 years and how Jacobio must position itself for success in this dynamic environment as not a Chinese player but a global player.

Dr Wang and Dr Hu, could you please share the story of how Jacobio Pharmaceutical was established?

We are the co-founders of Jacobio Pharmaceutical but it is not the first time we have worked together. In fact, we have known each other for nearly 20 years, since our time at Yale University. Dr Wang in particular has a very interesting background. He is one of the founders of Betta Pharmaceutical, a well-known name within the Chinese biopharma industry.

I [Dr Wang] left the US because when I finished my postdoc at Yale University, I was already 38 years old. I was older than my advisor and many professors around me, so I felt the urgency to build my career quickly. When I first returned to China, I actually knew very little about the pharmaceutical industry. But I could see that most Chinese pharma companies were focused on generics drugs instead of innovative drugs. With my 15 years of cancer research background in both the US and China, I thought I would be able to contribute something to the industry.

In particular, I had worked on the Gleevec project during my postdoc. Gleevec, as is well-known, is the first ever targeted therapy cancer drug launched in 2001 by Novartis. Previously, since the first cancer drug was approved in 1942, all available treatments for cancer had been focused on cytotoxic therapies, i.e. chemotherapy. Having worked on this project, I knew the story well. The launch of Gleevec was a historic milestone in cancer therapy. This is what Betta set its sights on.

For almost ten years, Betta worked to develop a kinase inhibitor for Non-Small-Cell Lung Cancer (NSCLC) to launch for the Chinese market. Our product was launched in 2011 and it was really a major milestone for the Chinese biopharma industry. Since there, I am very proud to say that almost 200,000 patients in China have been treated by this drug. Such targeted therapies are extremely beneficial to patients because they can be delivered at home, thus allowing patients to continue with their normal lives instead of having to be hospitalized. This also relieves the burden on hospital resources, which is quite limited in China. In addition, because Betta was really focused on meeting the needs of Chinese patients, we launched this product at a lower price compared to those set by the foreign multinationals.

Betta Pharma was listed on the Shenzhen Stock Exchange in 2016. By that point, it had grown to around 1,200 employees. Ever since our product launched, we have both spent a lot of time on the commercial side of the business, including marketing, promotion, attending conferences, and so on. This was necessary both to explain our novel therapies to local doctors and to support clinicians in their research work. But both of us are ultimately more focused on the science and R&D side of the industry. That is what we are passionate about. That is ultimately why we decided to establish Jacobio in 2015.

Can you compare the Chinese biopharma industry environment from the time you established Betta to now with Jacobio? Is the environment now more supportive for pharma start-ups like Jacobio?

The environment has indeed changed considerably in the past 15 years. There are advantages and disadvantages.

Certainly, the whole ecosystem for pharmaceutical research is much improved. Since 2008, many overseas-educated Chinese scientists, academics and researchers have returned to China. Since 2008 as well, the Chinese government has invested CNY 4 trillion (USD 576 billion) in the basic medical insurance for China. As a simple example, 15 years ago, there were very few professional CROs in Beijing or China. We had to collaborate with academic labs, which were less efficient, less

professional and less international. Today, China ranks amongst the top CRO markets in the world and there are many more options. The same applies to the VC side. There were almost no professional VC or PE funds 15 years ago, especially those looking at healthcare specifically. At that time, we had to raise money from real estate conglomerates because they were the ones to have available funds.

At the same time, however, costs have gone up significantly, both in terms of costs of living and operational costs as a business. A very good example is this: at Betta, in the eight years (from 2003 to 2011) it took to get our first product approved, we spent a total of USD 20 million. For Jacobio today, we spend USD 20 million every year!

As the cost of living has shot up, salaries have also increased. Talent recruitment is extremely competitive in China and in Beijing. 15 years ago, an annual salary of CNY 100,000 (USD 14,400) would be considered extremely competitive. Now, even USD 100,000 is not considered competitive. For the most talented, high-level people, CNY 1 million (USD 144,000) is considered the baseline. It has gotten to the point where it is actually easier and cheaper to find the right people â?? PhDs with a few years of experience in global pharma companies â?? in Boston than in Beijing!

What this means for us at Jacobio specifically is that we cannot focus only on the Chinese market. China may be the second-largest pharmaceutical market in the world but it still represents only 10 percent of the global market. For a company to succeed, we have to set the bar high. We want to develop a first-in-class drug that meets the needs of the global market. That is Jacobioâ??s ambition.

The most exciting news of Jacobio now is your compound JAB-3068, which just entered Phase I clinical trials in April 2018. Why did Jacobio choose to do clinical trials in both the US and China?

We are currently focused on the US and China in terms of clinical trials. As mentioned, we aspire to be a global biopharmaceutical company. China is an important market for us as we are based here and there are important medical needs to be met here.

Nevertheless, the first nine patients recruited into our Phase I clinical trials are actually from the US. For a number of reasons, the clinical research ecosystem in the US is still more advanced than that in China. For instance, the start-up process and patient enrollment are both more efficient in the US.

A contributing factor is that we are doing first-in-class study. Principal investigators (PIs) in the US are generally more experienced and knowledgeable than Chinese investigators when it comes to working with first-in-class compounds. They can understand the basic research that accompanies clinical trials with such novel compounds very well and can interpret the basic research into the clinical study, simply because they have more exposure to the innovative drug development.

The clinical trials facilities and infrastructure are also better in the US than in China. If you are working with a very novel compound, there are only a few hospitals in the top-tier cities in China that can manage clinical trials, but in the US, most states will have the kind of clinical research facilities needed to support early phase clinical trials.

Given the current tensions between the US and China, is it difficult for a Chinese biotech company developing first-in-class therapies to conduct clinical trials in the US?

I think fundamentally, innovation is done for the patients' benefit. It is not good to involve politics. As business people, sure, we keep an eye on the current tension between the two countries. But currently, we are not very concerned because healthcare is a basic need. We should all put patients' medical needs as a priority.

Jacobio has submitted INDs and conducted clinical trials in both China and the US. We did not notice any problems in the US. We found that the discussion was purely scientific and there was very smooth communication between both sides. I think the industry is driven by science. If the doctors and PIs are excited about the new targets, they will be eager to work with them. I would venture as far as to say that we have found collaboration with US hospitals to be more comfortable than with Chinese hospitals, particularly if it is the first time working with that particular investigator. For Chinese hospitals, you need to go through some time to build up the relationships before things work more smoothly.

What are the key priorities for Jacobio for the next few years?

We are focused on our research and we are keen to develop our pipeline as quickly as possible. It is a very good moment for the Chinese biopharma industry at the moment so we want to seize this window of opportunity. We have a very strong pipeline so we hope to launch one or two INDs every year. We already have two planned for 2019 and two for 2020.

In terms of our in-house research, we are focused on cancer, including immunotherapies and targeted therapies. That is our area of expertise. But we are keen to develop partnerships with other companies in other areas of interests like cardiovascular, anti-infectives and antibiotic resistance. We have already collaborated with a company in Taiwan and a company in the US on such projects.

Another key priority is to set up our lab in Boston and start building our R&D capabilities there. We want to recruit both clinical and business development people there. The fact is that Boston is still the leading biotech hub in the world so we need to be present. The pace of science and research is so fast. We already have some activities there through our own network but we need to pick up the pace.

We have a very good pipeline so we have already been approached by a few Big Pharma companies. I am pleased to be on their radar as well and we will explore opportunities to collaborate with them in the future.

As mentioned, for a new biotech company focused on new drug development, we need to think, be and do global!

As veterans of the Chinese biopharmaceutical industry, what do you see as your greatest achievement so far?

As scientists by background, if you see more patients benefiting from your treatment and research and have better quality of life, that is the biggest achievement for us. Doing basic research is great work, but if you see your work translated into clinical applications, that is very exciting. I have friends and family members using our product so you can see the genuine impact of our work.

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