Interview: Tom T. S. Kun – Director / Deputy GM, Hybribio, Hong Kong



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Hybribio is a very interesting company, being founded in Hong Kong and now headquartered in Guangzhou as one of the leading providers of in-vitro diagnostic (IVD) assays in Greater China with significant international presence as well. Can you tell us more about the company's positioning today?

Hybribio was actually found by Hong Kong S & T, a family-based investment group that decided, after the 1997 Asian financial crisis, to diversify their investments away from trade, real estate and finance into new and upcoming sectors like biotech. We came across several opportunities and invested in a few areas: targeted therapies, vaccines and in-vitro diagnostics (IVD). After three or four years, it became clear that our IVD business was taking off and so we decided to focus on it.

From the beginning, we were collaborating with some of the most prestigious organizations in China, like the Shanghai Institutes for Biological Sciences (SIBS – □□□□) and Yunda Technology (UNIDA Co. Ltd, □□□), a company incorporated under Yunnan University. Today, it is considered extremely impressive if you can find one academician to join your start-up but when we started, we

had four involved with us! It was an all-star line-up. As for our IVD platform technology, we obtained it from the University of Hong Kong (HKU). We might be one of their most successful biotech knowledge transfer case and they remain a company shareholder today.

Twenty years on, we have developed into a leading provider of IVD assays with a fully integrated operation chain from R&D, manufacturing, sales and marketing to after-sales technical support service, focusing on three clinical focuses: infectious pathogens detection, cancer-related detection and genetic disease detection. Our flagship products for Human Papillomarvirus (HPV) continue to represent 80 percent of company sales, but we have also expanded into other specialties like thalassemia, G6PD, hearing loss susceptibility, phenylketonuria (PKU) and early cancer detection.

The 4 As ‘advanced, authentic, accurate, and affordable’ have always been held as the core values of our products, which have allowed us to become one of the largest molecular diagnostic companies in China.

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We employ over 800 people with two GMP facilities and 25 regional offices, providing products and services to over 1,200 hospitals and medical institutes in China alone. In addition, over 25 countries internationally, from Asia-Pacific, Middle East, Europe, Africa and South America, use our products for national screening, clinical and research purposes.

What do you see as the main factors contributing to Hybribio’s success today?

First and foremost, the financial stability our parent company could provide from the earliest stages was critical. The question for most, if not all start-ups, at the beginning is, how long can your company even survive?

Next was choosing the right platform and then the right product. Many companies may have good platforms but choose the wrong products in terms of market demand. We decided to use HPV as our primary penetration point because it was a relatively unmet market need at the time.

What was strategic about HPV is that it is a very distinctive prerequisite for cervical cancer, where most other cancers usually have multiple causing agents. For this reason, we believe that this is the first cancer that humanity can eliminate. Cervical cancer is also the second most common cancer in China. Out of the roughly 500,000 new cases in the world, around half comes from China. The global death rate is between 120,000 to 200,000 and again, around half of these cases are in China. Furthermore, compared to breast cancer, for instance, cervical cancer kills women at a much younger age.

HPV testing relies exclusively on molecular biology techniques using nucleic acid probes. HKU had developed this flowthrough hybridization platform that allows us to probe our interested target DNA sequence by forcing it through a nitrous oxide membrane. I like to use the analogy of a bath versus a shower – a shower is faster and much more effective. We shortened the time from 8 hours to 10 minutes! We were also the first company to provide a full genotyping test. The dominant product at that time was a high-risk 'yes-or-no' test that could not determine whether you had one or more genotypes or a single or multiple infection. This may be sufficient for screening purposes but not in the clinical setting – because cervical cancer tends to be caused by continuous infection with the same HPV strain over an extended period of time.

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This meant that Chinese KOLs, doctors and government officials were very eager to listen to our pitch and consider our product. This allowed us to punch well above our weight, which would not have happened if we had selected a much more common disease like Hepatitis B, for instance, for which there were already tests available. We would have to work so much harder to convince people to switch over to our tests, even if they were better. As of 2016, over 16 million of our HPV genotyping test have been performed in China. We are also the only company collaborating with the Ministry of Health in China to establish the first HPV database system there.

The key is to understand market needs. We have launched several new HPV tests, including a 13-genotype PCR-based test used most commonly in health check centers to simply see whether someone is infected with HPV. This has now been considered by the National Institute of Health in the US for use in a national screening project in Nigeria because it was the most cost-effective option; a paper on this has been published. In addition, by the end of next year, we will have developed and licensed ten more products focusing on pre-natal and neonatal screening, including for thalassemia, hearing loss susceptibility and PKU. By then, it would be the most comprehensive prenatal and neonatal screening portfolio in China.

What is the significance of the fact that Hybribio is a fully-integrated company with its own R&D, manufacturing, sales and after-sales support functions?

Our fully-integrated nature has proven fundamental to our success because it means that we do not face any significant weaknesses. We may not necessarily have the best R&D or manufacturing or sales teams but we have full control and autonomy over all company functions. We do not need to rely on external parties. This well-roundedness has served us very well. For instance, right now we sell around four million HPV tests in China every year. If we won a national screening contract

from the Chinese government today requiring us to provide 40 to 50 million tests, we would be able to ramp production up accordingly. Other players may not be able to do so; even established market leaders would have to import to meet this additional demand.

We have also invested in our sales force of around 170 people. We generate 70 percent of our sales from direct sales, which is probably the highest ratio among all molecular diagnostics companies in China. When we first entered the Chinese market, we went the traditional route and used a distributor, but we soon realized that it is very important we maintain close relationships with our clients. Every head of department or designated doctor would know people from my company if they are our clients. This approach was reinforced recently as China has decided to increasingly centralize its purchasing and tender approach to the pharma industry in what they call the 'Two Receipts' initiative. The goal is to minimize the use of middlemen in order to reduce cost, so products should move only from the manufacturing to the distributor to the hospital. I certainly cannot say we foresaw this policy shift, which was very surprising to the entire sector, but it gives us a strong advantage!

I do believe we have the best after-sales service team, which is actually larger than our actual sales team. We have one of the fastest customer response times in the country: 48 hours. This represents our firm commitment to our clients.

What further opportunities do you see for Hybribio in the future?

In order to better serve our community, we have decided to establish a network of our own clinical laboratories covering all major cities in China. We already have 16 CFDA-approved sites across China, including in Hong Kong, Beijing, Shanghai and Guangzhou, with three more under renovation and awaiting approval. By the end of this year, I expect we will have 18 approved sites in total, which would rank us as the fourth-largest operator of private clinical labs in China in terms of lab number.

There are a few reasons behind this shift. Firstly, it is a market with immense growth potential in China as the government is trying to relieve the pressure on the public hospitals by decentralizing service provision. Currently, out of the 20,000-plus hospitals in China, only around 2,000 have proper PCR facilities. Having our own labs would also help speed up our own R&D rate in terms of the number of samples we can process. It would also consolidate our presence in the larger healthcare space. For instance, in the future, if we decide to branch out into establishing our own health check centers and clinics, these labs can help us make that leap. We are currently already providing many oncology testing services for major companies, catering not only to the Hong Kong

market but the entire region. Hong Kong is a good base to establish such operations as the regulatory framework is more permissive, allowing new products to be tested.

Hybribio has seen a lot of success in just two decades. How would you like to position the company in the IVD field over the next few years?

We are still a very young company compared to the established diagnostics players with a couple of centuries of history! In our industry, especially, it takes a long time to develop the expertise, company knowhow and corporate culture. We may be more mature relative to Hong Kong start-ups but we see so much more room for us to grow in the future.

The average age of our employees is 29.5 years old. We place a lot of emphasis on staff development and training, and we actually invest significant resources into promoting from within. For instance, our current Head of Manufacturing began as divisional head ten years ago and moved steadily up the ranks. One testament to this is that many mainland Chinese companies like to attempt to hire from us but the core of the company has proven extremely loyal to us, which to us is proof that our approach is working. To the industry at large, it may appear that our management is extremely green but I always say, our youth is in fact our largest strength. In 30 years from now, all the current, older executives – that are more experienced, capable and better connected – would have retired, and we would have 30 more years on the new generation of leaders!

Unlike many other biotech start-ups, our plan was never to build the company into a ‘product’ that could be sold to industry for a lucrative return. We want to build Hybribio into an IVD leader in China and we firmly believe we have the capabilities and capacity to do so.

On a more personal note, you came from a finance background. What attracted you to this industry?

I have always had an interest in new trends. While I was working in finance, my areas of concern was home electronics and medical technology. I had the opportunity to visit over 90 public companies while I was working in this field in Shanghai, which only reinforced my belief that I was not interested in the more ‘traditional’ industries, I wanted to work in the industries of the future, whether it is new energy, new materials or something else. It turned out to be biotech – because of what Hong Kong S&T had decided to invest into. There was a strong element of familial duty in returning to run Hybribio but I would not necessarily have done it if I had not also been fascinated by the industry. I then went on to do a Masters in Biotechnology so I have a better grasp of the business fundamentals.

It has been a great privilege to be able to grow the company in the direction that I wanted. For instance, I started our expansion into Southeast Asia, now a fast-growing market for us, with a direct, in-person sales cold call in Malaysia. We simply shipped a machine over to Malaysia, hopped into a taxi and asked to be taken to the largest private hospital in Malaysia. It was also my push to branch into opening clinical laboratories in 2012. I had to convince quite a few initially resistant board members that wanted Hybribio to wait until after listing to do this. But I thought it was important for us to build the knowhow in Hong Kong first so that we could immediately enter the mainland China market after our IPO.

Two years ago, the Guangzhou new HQ was established. We bought a piece of land and built our entire facility from scratch. There is around 480,000 square feet of usable space there, which makes us one of the largest molecular IVD plants in the whole of China. It is progress like this that marked the steps of our companies' growth and I'm proud to have been part of this history.

A final message on behalf of your company?

Our company slogan is that we want to be the best diagnostics partners to clinical professionals – and this sums up our fundamental philosophy.

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