

Cheney Mao - Chairman & CEO, Viva Biotech, China



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Dr Cheney Mao, chairman and CEO of Viva Biotech, shares the extremely unique business model of the company, which started as a highly specialized CRO in 2008, before launching a new 'equity-for-service' model in 2016 that focused on incubating biotech start-ups from their inception to IND stage. He highlights their successful investment track record so far, their ambitions to become a global biotech incubator, and three of their most promising biotech investments.

Dr Mao, could you start by introducing Viva Biotech to our international audience?

Viva Biotech has an extremely unique story. I founded Viva Biotech in 2008 as a highly specialized contract research organization (CRO) with a core focus on one drug discovery technique: structure-based drug discovery (SBDD). This is a very popular and core technology. Based on last year's review, almost 50 percent of drugs in clinical trials have been discovered by using this technique. In addition, this technology also increases the efficiency of drug discovery - by two-fold over the past decade, cutting discovery time from an average of six years to three years. Currently, we are providing this service to 388 companies globally (as of June 30th 2019), and I am very proud that for the past 11 years, we have consistently stayed at the top of the rankings in terms of project delivery as well as reputation.

Three years ago, we embarked on a new and highly innovative business model. We started to focus on incubating biotech start-ups from Day 1. This launched our 'equity-for-service' model, to

complement our existing 'fee-for-service' CRO model. Our vision is really quite unique because we are mentoring and supporting these companies from the very beginning of their journey, when they are in desperate need of investment and resources. Today, many of our investments are a combination of equity-for-service and cash-for-service as we try to be a one-stop resource centre for these types of projects and add value as an investor.

We do not want to be there when everyone else is already there. We think that we will grow with them. A lot of companies obtain later-stage funding after initial support - and they have frequently become very hot, in the news. We are proud.

What inspired you to undertake such a risky move for Viva Biotech?

As a CRO, we had been focused on early drug discovery and pre-clinical work for over a decade. But the biotech arena is far broader - and has huge potential. Looking at emerging markets, especially in Asia, I firmly believe that biotech is the industry with the most potential and excitement. In the area of biotech, you can be an entrepreneur with a great idea and build a company around it.

With several hundred well-trained scientists possessing key drug discovery expertise and established strengths in one of the most efficient and commonly used drug discovery techniques in the industry today, Viva Biotech is well-positioned from a technical perspective. From our CRO success, we have built a strong financial buffer and robust cashflow to fund our 'equity-for-service' and cash investment model. For this model to work, it is all about cashflow. The company not only has to survive but it has to be highly profitable. We are fortunate because our positioning within the CRO sector is highly competitive and therefore, we have been highly profitable, with gross margins of more than 50 percent.

In terms of risk management, we have undertaken several measures. Fundamentally, we have to ensure that our business model is scalable and sustainable. This means that we must be able to exit our investments at a fairly steady pace. From our experience having worked with thousands of biotechs as a CRO, we noticed some patterns. Truly quality start-ups move from zero to Phase I IND filing within three years. In another two to three years - maximum of six years from inception - these start-ups have either been acquired or have IPOed, often to the tune of hundreds of millions of USD.

From our perspective, entering the picture at Day 1 requires only a few million USD from us to support these start-ups to reach IND filing stage. Compared to the second milestone – being acquired or an IPO – that is a very small sum in exchange for huge added value. Initially, to be honest, biotech founders and entrepreneurs were very reluctant to participate in this. After all, equity is very precious to them! But we soon found that if we ask early enough during the start-up's development phase, they would agree because of the value we add to the relationship. Therefore, we decided to approach start-ups at the very beginning of their journey, when they are truly in need of support and investment, to help them get to the pre-IND stage where they are able to raise money from other investors.

Our objective is to exit 50 percent of our initial investment at the first milestone of achieving IND filing. With this, we are able to invest in four more start-ups. Therefore, this model is highly scalable. As an example, last year, we made four exits, which garnered rates of return of over 200% for each of them! This also gives us the resources to support even more start-ups. We are certainly the pioneer of this model and we are very excited to share this with the global industry, where there are so many brilliant ideas and start-ups looking for initial investment and support.

How does Viva Biotech select these start-ups on Day 1 when they are really still in their infancy?

This is a monumental task! Our immediate goal is to reach a certain scale so that we can stabilize the project inflows and outflows. By the end of 2020, we hope to have assessed around 1,000 more companies, from which we can select around 50 to incubate – our current acceptance rate is five percent.

We routinely review hundreds of initial funding requests from all over the world. Through our team's combined decades of experience within the industry, we have built a great network of industry executives at all levels from senior management to middle management to research. These are people that we have worked with or know personally. We also have business partners with strong credentials and track records in drug development, including several dozens in clinical trials and half a dozen already on the market. We also receive referrals from veteran and serial entrepreneurs. Many start-ups also approach us through word-of-mouth based on our stellar reputation within the discovery CRO space.

Then we implement stringent selection criteria with a five percent acceptance rate, as I mentioned. We focus a lot on the founder team's backgrounds. They must be highly qualified individuals with a

prior track record of success in drug discovery and development. In general, we are looking for companies working on first-in-class areas, where there is not much competition. We place a lot of emphasis on working with innovative projects. We also check other aspects like potential conflicts of interest and specific therapeutic areas. Ability to change and adapt is also important. Biotech innovation is such a risky area. Sometimes the first couple of tries do not work but what is important is that the team is flexible enough to change directions.

After selection, we work with them to introduce efficient protocols and procedures, incubate them, and provide the resources that they need all while being mindful of the startup's confidentiality and security. As mentioned, we need to build a very sustainable and scalable model so we push our companies to reach the first milestone of IND filing within two to four years, and the second milestone of IPO or acquisition within five or six years. We consider this the healthy cycle for the start-ups that we incubate.

I just want to note as well, for the 95 percent of start-ups that we reject, we still follow-up with those with potential to see if they could revise their business focus or plan for greater success in the future.

Within the Chinese biotech boom, we see two major trends in particular: the rise of platform technology companies as well as the in-licensing model. How do they fit within Viva Biotech's 'equity for service' model?

Our strongest expertise is in structure-based drug discovery (SBDD). In other healthcare-related areas like medical devices and cell and gene therapies, we are less strong but still open to investing should we encounter a suitable project. But in general, we focus on great people with great ideas. Synergies with our team and expertise are helpful but not necessary.

In general, platform technology companies are more attractive to us because they are not a single-asset company. If their first candidate(s) fail(s), they still have a pipeline of other interesting assets.

In-licensing is a good business model for biotechs because it gives you access to more developed products but it requires a significant amount of upfront capital and other investments, for instance, in clinical and commercialization teams. It is also very dependent on market prices. If many biotechs start to go down this route, it will drive asset prices up.

Could you highlight some flagship companies within your investment portfolio that you are particularly excited about?

We are currently working with companies from all over the world. We already have a base in Boston and we plan expand our operations in San Diego. In Shanghai, we are located in what is known as 'Pharma Valley' due to the high concentration of biotech and biopharma companies, many of whom we work closely with. Below are some flagship companies we want to highlight:

Headquartered in Jiaxing, Zhejiang, Viva Vision was born in the Viva BioInnovator incubators in 2016. The founder, Dr Wang Shen, was the inventor of Lifitegrast, which is one of the leading drugs for dry eye. He started Viva Vision as a way to develop innovative therapies in ophthalmology and dermatology. Up until their Series B in 2018, Viva not only provided all of Viva Vision's R&D needs in drug discovery through lead optimization but also their administrative, accounting, and HR services. Today, Viva Vision has 9 assets in various stages of development. Viva Biotech continues to support their early-stage work.

San Diego-based ArthroSi was founded in 2017 with seed funding from Viva and team of highly experienced founders/scientists who had already successfully navigated the drug approval process. We provided funding for their Series B fundraising. ArthroSi is now in the midst of clinical trials in Australia where they are working on a front-line treatment for gout. Viva assisted in the entire development process from small-scale synthesis to large-scale production.

Flash is working on dual kinase inhibition to achieve a durable killing of cancer cells. The lead product has an indication in the treatment and prevention of acute myeloid leukemia (AML) relapse. The five-year survival rate for this disease is less than 10 percent for patients over the age of 60. Flash is headquartered in Boston, MA. On the scientific side, Viva helped with Flash's lead optimization. As Flash is a virtual company, Viva assisted in company administration, financing and HR. One of our Venture Partners is currently their CEO and we have played an active role in successful fundraising.

A final message to our international audience?

Please come to Viva Biotech, we look forward to working with you.

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