Sizhen Wang – CEO & Co-Founder, Genetron Health



Our intention is to become a China-based international company that leads in the genomics space globally

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Genetron Health is a publicly-traded China-based precision oncology company, covering the "full-cycle" of cancer care, from early screening, diagnosis, and treatment recommendations to continuous monitoring care. CEO and Co-Founder Sizhen Wang explains how the company obtained US FDA Breakthrough Device Designation, analyzes the Chinese biotech sector, and highlights their objective to transform cancer from a terminal disease to a non-life-threatening chronic disease.

Can you briefly introduce Genetron Health and the products you offer?

We focus on cancer genomics research as well as clinical applications. We generally organize our business into three business segments: the first one being diagnostics monitoring, the second one is early screening, and the third one is biopharma services.

With all these business segments, we have been serving clients in China and globally and already have a good foundation in place to support the company's growth in such a large and fast-growing Chinese market. Our goal is to use genomics as a tool to transform the way we manage cancer. Cancer is a disease that is mutation-driven, genomics-driven, and we believe that by doing continuous innovation in the research and development of genomic testing tools, we will be able to essentially interfere in a different stage of cancer's evolution.

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Genetron Health has developed a comprehensive product and service portfolio that covers the full cycle of cancer care from early screening, to diagnosis and treatment recommendations, to continuous monitoring and continuous care. We want to transform cancer from a terminal disease into a chronic disease; doing effective management across the different stages is essential to achieving that goal. If you can detect the cancer at an early stage, it often can be cured, or largely cured with a simple surgery.

Beyond precise diagnosis, there are new products that the industry is working on, called minimal residual disease; by leveraging the molecular testing, or genomic testing, you will be able to monitor the resurgence of cancer after surgery, enabling a quicker response. I believe that these actions will provide a better chance on the road to making cancer a chronic disease and not necessarily a life-threatening disease.

Precision medicine is usually defined as finding the right medicine or therapy at the right time for the right patients. From what you said, your products fit into the last two categories but what about finding the right therapy through your products?

That is a good question. As you can see, not only are we doing screening and diagnosis, but we're also doing companion diagnosis. Companion diagnosis, in general, refers to a test that is associated with a specific drug, which means that you would need to be tested to find a certain mutation before the doctor would ever put you on a therapy. That is a good example of giving the right treatment.

How different is your model from the usual standard of diagnosis?

The traditional diagnosis of a pathology takes around two weeks to get results and, today, medical diagnosis or genomic testing has about the same cycle time. However, we see that technology is evolving as we are pushing more into in-hospital testing; we want to shorten this turnaround time because it can make all the difference for patients.

To fulfil that goal, Genetron developed a particular technology in-house called One-Step Seq. It does the work in one step while traditional NGS testing takes probably five or six steps. That means that if we put this clinical diagnosis solution in the hospital, we can achieve a fast turnaround of as fast as two days; it is quite an improvement. We have just got our first lung cancer assay approved by China's National Medical Products Administration (NMPA) in 2020, and we are pushing this

solution into hospitals to achieve a faster turnaround time.

Genetron Health received a Breakthrough Device Designation by the US FDA last year for another screening product. What is special about the product that it managed to achieve the designation?

That itself is a breakthrough technology and a breakthrough product. We felt that we needed to tackle liver cancer screening and it became our top priority given that liver cancer is one of the most life-threatening diseases in the world. Around the world, there are 800,000 people dying from liver cancer each year and 50 percent comes from China. One of the reasons is China's large population of HBV (hepatitis B virus) carriers, around 100 million.

Globally, no one yet has a good enough screening product for it, and we wanted to create one that could capture that cancer at an early stage, which we believe will greatly enhance the five-year survival rate. We did it through our self-developed proprietary technology called Mutation Capsule. Essentially, it is a unique technology that will allow you to integrate multi-dimensional biomarkers. We did a large-scale cohort study, where we were able to develop hepatocellular carcinoma (HCCscreen^{TM}) as our first early screening product.

Last September, we submitted some of the data to the FDA and we successfully got the breakthrough designation, essentially for two reasons: one is that the FDA does recognize that liver cancer is a very important disease to fight, and another is that they realized that their current method is not good enough to save lives. The FDA realized that our technology was superior because we had 92 percent of sensitivity and 93 percent of specificity versus liver cancer screening AFP plus ultrasound.

In the latest data and results of a multi-center prospective study for HCCscreen^{TM}, stratified by tumor size, 49 percent of the cases identified by HCCscreen^{TM} were in early stage, i.e. <3cm. These patients are expected to have much better prognosis than the ones for advanced stage. Additionally, HCCscreen^{TM} achieved sensitivity of 85 percent for tumor sizes of <3cm, 96 percent for 3-5cm, and 88 percent for >5cm.

Based in Beijing, the company took the decision to go public at the NASDAQ last year. Can you walk us through the decision and how it has transformed Genetron Health?

Yes, we are a company based in China, but we are also an international team of professionals. Our intention is to become a China-based international company that leads in the genomics space globally.

We believe that we have the chance, given that we have a combination of world-trained scientists, good clinical resources and support from the government. China is the right place to develop the right product.

With that long-term goal of becoming a global leader in this space, we feel that NASDAQ was a great place to get our first IPO done because it is where the most innovative biotech companies go. By becoming a public company, we are able to speak to the global investment community and show them that we are a force that cannot be ignored in this space. We feel that the decision has allowed us to attract more talent and enjoy brand recognition.

It was reported that the company raised US $250 million through the IPO. How will you spend the money? Are you looking at further improving your technology or strengthening your commercial operations?

It will be both. We will make continuous investments to continue innovating, essentially. We want to do deep research and good product development to create good clinical value and save lives. That is where we will continue to spend heavily. We are in a good position since we are well capitalized and have a very strong balance sheet.

At the same time, we also need to invest in market education, as well as build up our distribution network because this sector is still new in China. For any commercialization of a new technology, you need to educate the end user and build a solid commercial foundation.

The company posted revenues of US $65 million in 2020, an increase of over 30 percent compared to the previous year. What led to that growth and what is your path to profitability?

We are pleased to see this level of growth given the heavy impact of COVID-19 last year. I believe our growth is driven by two factors: one is that this market is growing fast in China, and the second is that we have the unique technology to serve the clinical needs well. We are confident that Genetron has the capability to gain more market share. This year, we expect to grow much faster,

hitting over CNY 600 million in revenue, a 45 percent increase from 2020.

In terms of profitability, at this stage, as a fast-growing biotech company that is heavily investing in R&D and market education, we do not think that achieving profitability is a right priority for the company. That being said, we have a strong balance sheet to support the right spending.

Our focus now is on developing the right technology and products, and also educating the market. Without adoption of the best technologies, we cannot save lives. Moving forward, the industry will see Genetron continuing to develop best-in-class products to further penetrate the market in China.

Speaking about laboratory investment, the company has lab site both in China and the United States. Why did you choose the US to install a lab?

First of all, we wanted to have a presence in a strong technology ecosystem. That decision has allowed us to be in sync with academics and the industry's dynamics and development. Secondly, we needed a site there to be able to serve the industry both in China and the US simultaneously. Thirdly, we wanted to launch a registration trial in the US for our HCCscreen^{TM} , so we needed one site there.

Working with more doctors and hospitals, as you said, requires partnerships such as the ones you have made with a subsidiary of Sino-Biopharma and Thermo-Fisher. What do you tell potential partners such as biopharmaceutical companies, CROs, maybe research institutions, about your products, about Genetron and yourself as a partner?

I fundamentally believe that genomics will become the foundation for modern medicine. Genomics experts are becoming a centerpiece of the modern medicine industry. We have a lot of global partners, not just in China, that work with us. These collaborations will only grow deeper over time. We are happy that we can be the one, to become the center of the value chain, linking different institutions together, not only to drive product innovation but also clinical applications.

You co-founded the company in 2013 and went public seven years later. What is next?

Going public is only one milestone that was important to achieve. It will give the company a lot more resources to grow and achieve the vision we had. The vision upon founding this company was

that “genomics will be the foundation of modern medicine” and we believe that by applying genomics adequately to cancer, we will be able to turn it into a non-life-threatening disease. That is still our vision, and we will not stop until we achieve that. Our products are already getting close to solving some of the problems, but we still have to work hard.

In the next three to five years, we will be able to grow much faster. Genetron will evolve into more of a platform-based company instead of a pure product-driven company. The technology, the product, the data and the platform, all together, will help us achieve our goal.

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