

Mike Chen - President and CEO, ACROBiosystems, China



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Mike Chen, president and CEO of ACROBiosystems, shares his global success as a manufacturer of recombinant proteins supporting biologics R&D and how he hopes to expand his business to eventually set up a multifaceted platform for MNCs and biotechs.

Mike, what opportunities did you see when deciding to set up ACROBiosystems in 2010?

Before starting ACROBiosystems, I was working in ThermoFisher as a scientist. One of my colleagues encouraged me to set up my own company, but the big question was on what. In 2010, there was a huge unmet market for pharmaceutical development. There were many companies that were looking to improve the lead time of pharmaceutical production processes at a more competitive price. This is why we started. I have a cell culture background, so I had the knowledge and experience to begin ACROBiosystems.

Having worked at ThermoFisher prior to setting up ACROBiosystems, how have you leveraged your experience in a large MNC to lead ACROBiosystems?

I learnt many things at ThermoFisher related to business development and technical development. Prior to ThermoFisher, I was working for Life Technologies - another big leader in this industry.

My customers during my time in ThermoFisher are similar to the ones I have today: big MNCs and biotechs. Seeing that I worked with those clients for many years in ThermoFisher and Life Technologies, I knew how to approach them when setting up ACROBiosystems.

What have been the main challenges you have faced since establishing ACROBiosystems?

Companies tend to experience the same challenges but with a different story, and the challenges are different depending on the stage of the company. When starting ACROBiosystems, we had the idea, the market opportunity and the technological expertise. Nonetheless, it is not always that straightforward.

When we started, we did not have a lot of venture capital – instead, we used our own money. Furthermore, we did not have our own product and in its place, we had to focus on providing protein expression and production services. By 2012, we were already at a break-even point. This meant we could survive.

After survival, the next step was expansion. We decided to expand our subsidiary in the USA, to better reach the USA and European market. There are many large companies in these markets that are mainly concerned about quality, rather than price and consequently, we needed to invest our efforts into quality. We managed to establish a good quality system that ensures reproducibility of quality.

Once we had expanded to the USA, we needed to focus on sustaining the growth of the company. This is why we decided to set up an innovation laboratory to carry out R&D development, as well as provide services to our USA customers.

In the long run, we need to become a great company, that not only receives revenue but also helps others. As you can see, there are different challenges depending on the stage of the company and we will face many future challenges.

ACROBiosystems has multiple offices and branches in North America, Europe, and Asia. How do the operations in China compare to the USA?

In China, we have a very good team focused on protein production and more. We can easily export our products from China to the USA in around three to four days. In the future, we are thinking of

establishing an operation facility in the USA. By having a manufacturing facility in the USA or Europe, our foreign customers will be more comfortable when relying on us – in particular, bigger companies that are concerned about the quality and the sustainability of the supply chain.

We also hope to expand our manufacturing capacity in China. The demand in this market is increasing – especially, as customers begin to use our products for clinical and commercial development.

USA customers tend to be large pharmaceuticals, which are mainly focused on supply chain sustainability. In China, our customers are more flexible when it comes to speed of delivery. China is to some extent a “developing country” – meaning many of our customers are still developing. This is why, on the contrary to USA customers, many of our clients in China seek guidance and troubleshooting services.

What is the strategic significance of each ACROBiosystems branch and are you looking to expand to new areas?

The sales are as follows: 40 percent from the USA, 20 percent from Europe, 30 percent from China, and the remaining 10 percent from elsewhere. We grow our company every year by 50 percent on average. In China, we grow annually by 60 percent and in the USA by 55 percent. Our growth in Europe is slower. We aim to increase this growth by setting up a subsidiary in Europe. We are currently considering France, Switzerland and Germany. We hope to have made a decision by the end Q1 in 2020.

We do not have immediate grounds for the Japanese market, but it is definitely an important one to consider in the future. Australia is also an option, which could be easier to access since it is an English-speaking country.

In average, across all our branches, we have 50 to 60 new costumers every month – a total of 3500 customers and more than 80 percent of them are from industry.

ACROBiosystem has a large portfolio of services and solutions focused on mammalian cell-based recombinant protein production and process development. Could you share some of the most exciting projects you are working on?

We are able to produce proteins that are normally difficult to make. For example, it is very difficult to find CD20 in the market for antibody drug development and quality control, due to the low expression titer and the unstable bioactivity of the protein. ACROBiosystems can uniquely develop the highly active full length multi-transmembrane CD20 protein using both HEK293 cells and insect cells.

In addition, we have a series of products to support the recent boom in cell therapy. For example, we can produce CD19 protein, which remains the hottest target for CAR-T cell therapy. Our CD19 antigen products, including fluorescently labeled CD19 and biotinylated CD19, can support anti-CD19 CAR-T therapy development. Using flow cytometry, scientists can measure the percentage of anti-CD19 CAR expression. In the future, we want to develop more quality control products for CAR-T development. We are also working on anti-idiotypic antibodies to help monitor immunogenicity during cell therapy. With regards to our clients in cell therapy, we are supporting large MNCs, like BMS and Novartis, as well as smaller biotechs.

We mainly focus on cancer immunotherapy, but we do have some products for infectious diseases and heart diseases, and we hope to eventually expand even further into these fields.

In the future, we are also very interested in developing products for monitoring the usage of pharmaceutical drugs in the hospitals.

Interestingly, there is not a big difference between the requests of Chinese scientists compared to the USA or European scientists. As a matter of fact, many Chinese scientists are returnees that have learnt their techniques abroad. This means there is a global standard when it comes to technology.

ACROBiosystems has developed a proprietary HEK293 expression platform with strict animal-free and xeno-free conditions. What makes this platform special?

Our cell line and cell culture media formulation results in better protein expression at a higher yield. We are currently working with 50L bioreactors, and eventually we can scale up to 200L. At the same time, we also aim to minimize the scale of the bioreactor with a continuous perfusion process. Less volume will allow us to harvest and purify every day.

With proactive government support, aggressive VC activity, sea turtles returning from abroad and recent healthcare reforms, we have seen significant changes in the healthcare landscape in China over the past few years. How do you anticipate ACROBiosystem's story will unfold in the next few years?

We want to support the entire healthcare and pharmaceutical industry. Many companies are looking to enter China, but the talent is limited.

We recently set up a branch in Hangzhou, where we carry out training courses with good speakers from China and the USA. They are here to train scientists to eventually increase the talent pool in China, for both ACROBiosystems and our customers - it is a win-win situation.

Employees choose to work with us as we offer a large variety of options. We have multiple sites around the world, and many types of job offers. In addition, ACROBiosystems has a large impact on countless companies.

On another note, we have a manufacturing facility in China that is led by a great team. On that account, we can more easily adapt to the Chinese market compared to other companies and accelerate the whole drug development process.

We also see that Chinese biotechs are gradually developing extensive pipelines. However, some of them do not have the capabilities to launch them into the market. These biotechs are looking to license out their products to large MNCs. We aim to act as a bridge between MNCs and biotechs. In this scenario, MNCs will develop their pipeline and smaller companies will receive money to sustain their R&D. In the future, we want to become a fully integrated platform for companies, large or small, to benefit from.

What is ACROBiosystems competitive advantage?

We are mainly focused on developing products and services to support the pharmaceutical industry: 85 percent of our clients are from industry and the remaining 15 percent are from academia. Our competitors tend to have an equal ratio between industry and academia.

We have four main differentiating factors.

First, our product is specifically designed to customer application. Second, our product is of high quality. We have a good quality system that ensures consistent quality and sustainability in the supply chain. We understand that our clients do not have the time or money to make mistakes.

Third, we provide both products and technical services. Our technical support system will offer companies protocols and personalized solutions. We also have a team that can personally visit our client's facility to help improve the process; as well as, an in-house R&D team dedicated to troubleshooting off-site. In addition, our online chat allows clients to talk to us whenever necessary. Fourth, we are quick to adapt to customers' requests. We have a warehouse in the USA, which can deliver products to companies within 12 hours. We are also thinking of building a warehouse in Europe. For Europeans, it currently takes between three to five days.

What will ACROBiosystems look like in three years?

In three years, we want to grow up to the size of an MNC. By that time, we will have a China site, a USA site and a European site. Hopefully, we will have offices in Japan as well.

Looking further ahead, we want to build a platform company that can help companies in many ways. Some of our services will include capital support, product development support and guidance when licensing-out products.

As a final question, what are your motivations?

I have experienced the whole journey from setting up the company until now, and it is a fulfilling learning process. ACROBiosystems is providing value to our clients, who are greatly satisfied with our products. In addition, by serving the healthcare industry we are indirectly helping patients. This is all very motivating to me.

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