

Interview: Hong-Jen Chang - CEO & Chairman, YFY Biotech Management Company, Taiwan



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Hong-Jen Chang, former Deputy Minister of Health and current CEO and Chairman of the YFY Biotech Management Company, a Taiwan-based VC fund which has been playing an instrumental role in the development of Taiwan's biotech industry, provides insights into his investment approach and documents the key success factors to prioritize for the future development of local, innovation-driven biotech companies, as well as the contribution of YFY to further propel the local biotech eco-system.

As former Deputy Minister of Health of Taiwan and former President of the National Health Insurance Administration (NHIA, formerly known as BNHI), what do you see as the key milestones that have contributed to the strengthening of Taiwan's health system?

In the 19th century, the first European missionaries brought the concept of the hospital to Taiwan; as such health infrastructure doesn't exist in the traditional Chinese medical culture. Nevertheless, the Japanese truly gave the first impulsion that led to the rapid improvement of our health system. As from the beginning of the Japanese colonial era – from China's defeat at the 1895 Sino-Japanese war to the end of the World War II – they immediately understood the threat that our island's subtropical climate implied. As a matter of fact, tropical diseases made the mortality rate jump to 7.5 percent per annum a few months after their conquest of Taiwan. At that time, Japan clearly stood as the military superpower in the region, having defeated both the Russians and Chinese:

tropical diseases were then the only life-threatening opponents they still had to fight.

The Japanese Emperor appointed an executive officer to Taiwan who happened to be a medical doctor by trade. Assessing Taiwan's level of public infrastructure, he prioritized the rapid development of our public health system. In 1897, Japan then founded Taiwan's first public hospital, which is now known as the National Taiwan University Hospital. This stands as a crucial milestone in the modernization of Taiwan's health system, which has continuously improved over the subsequent decades. As a result, by the end of World War II, Taiwan's health system was particularly well developed, while the population also benefited from greater access to clean water, a good network of public transportation and universities.

In the '70s, Taiwan started its industrialization process. Given the increasing and evolving demand for healthcare services it generated, the government decided to foster the development of Taiwan's private health sector. In 1976 the Formosa Plastics Group, a Taiwanese conglomerate of diverse interests, including biotechnology, petrochemical processing and production of electronics components, founded the first large, non-for-profit, private hospital: the Chang Gung Hospital, which still remains the largest of its kind in Taiwan. From 1976 to 1995, we transitioned our health system from being primarily based on a public hospital system to a private one. In 1995, Taiwan finally implemented a true universal healthcare system, the National Health Insurance, which now covers more than 99 percent of our population.

As Taiwan's healthcare system underwent modernization, when did Taiwan's biotech industry start to flourish?

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In the '80s, we understood the need to upgrade our low-value, pharma manufacturing sector and step into the burgeoning biopharmaceutical industry, while developing the semi-conductor industry was also established as a priority by the government. Nevertheless the development of our biopharmaceutical industry didn't really pick up at this time, while the ICT sector started to thrive almost instantly to become Taiwan's dominant field for the past thirty years.

Despite its failure to give birth to pioneering companies, this first attempt to develop our R&D-driven biopharmaceutical industry set up some crucial government-backed institutions that are still at the core of our biotech sector, such as the Development center for Biotechnology (DCB), founded in 1984. In the late '90s, Taiwan's government decided to try his luck again in the biopharmaceutical sector, using this time another development vector: direct investment. As part of this new strategy, the National Development Found directly invested public funds through

biotech-specialized government agencies in order to support the early development of our first biotech companies, such as TaiGen.

YFY Biotech Management Company was established in 2005 as the largest Taiwan-based private fund specialized in the biotech industry, while you embarked in this new adventure after some 20 years working for Taiwan's government. How was the investment context around biotech at this time?

When I joined this venture capital fund back in 2005, I had just returned from Harvard, and had met with some executives of US biotech companies. They all showed me the same pie chart of the global pharmaceutical market: half of the pie chart was the US; another quarter was Europe; 15 percent was Japan, and the tiny 10 percent slice remaining was labeled 'rest of the world'. In 2006, Goldman Sachs coined the term BRICs: in Chinese, we say Golden BRICs. All pharmaceutical companies and industry observers were essentially focused on these countries and their eye-catching development potential. No one cared about the rest of the world and companies were not interested in looking east overall: business partners would walk away from the table as soon as we suggested bringing their products to the Asian market

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There were some biotech VCs established in Taiwan in the early 2000s, but all of them were focused on US companies. Basically, at this time, you were considered a fool if you decided to invest in Taiwan-based biotech companies. We nevertheless chose to implement a pioneering approach based on a mixed portfolio, comprising 50 percent American biotech companies and 50 percent Taiwan-based companies. 2008 marked the beginning of the Global Financial Crisis and almost all US companies we invested in started to face tremendous difficulties. Luckily, we had sold our some of our investments in early 2008, and although the return on investment was below our expectations, it probably saved us from bankruptcy.

Nevertheless, we saw that the first sector to recover in the Taiwan Stock Exchange was our then-small but burgeoning biotech industry. In 2009, we decided to stop investing in US-based biotech to only concentrate our efforts on local companies. By early 2010, three of my companies IPOed and that was the beginning of Taiwan's biotech boom. The success of our ICT industry has led to the tremendous increase in wealth of the middle-class of our country. By 2010, many of these professionals were in their 50s and started to anticipate their retirement: they were then looking for promising industries that could bring them interesting returns on investment. While the ICT industry was hitting a development bottleneck, the biotech industry started to be flooded with

money.

After 2008, the whole industry changed tremendously. The idea of focusing on Asian markets, which was massively rejected ten years previously, then became the industry norm. In 2013, Taiwan's biotech raised a slightly higher level of funds than all European countries together. In 2014 I was invited to Hong Kong to provide comments on Taiwan's biotech boom, but all other panelists of this international forum were extensively talking about Taiwan! When it was my turn to speak, I had nothing to add to their comments! For the first time in decades, Taiwan was at the center of the industry's discussions and its main source of excitement.

Over the past decade, many countries have been trying to build a viable and vibrant biotech stock market to grab the second place on the podium after the US, the unsurpassable leader. It is extremely difficult to build such a sound financial market for this industry, as many different factors relying on both the public and private sectors need to be aligned. In this regard, Taiwan has truly managed to establish the hottest viable biotech financial market for small biotech and medtech companies – outside of US.

You managed to establish YFY Biotech Management Company as one of the most successful and respected VC biotech funds in Taiwan. What are the most important factors you assess before investing in a company?

When I joined YFY, I didn't have any experience in the investment industry and my first priority was then to build the team that would allow us to thrive. Our fundamental mission is very easy: we look at the best and most promising companies of the sector, and we provide them with the money they need to reach the next step.

Nevertheless, I gained in experience over the past decade. When investing in a biotech company, I think it is crucial not to be focused on the technology side. Every technology holds its novelty; all companies have formidable business strategies where hypothetical clinical results could potentially lead to huge market opportunities.

When it comes to investing in a company, I concentrate my attention on the team, especially on the CEO and the chairman of the board. In this regard, my deep experience of Taiwan's healthcare and biotech sectors in general has been a very precious asset.

Besides funding, what kind of expertise are you bringing to the companies of your portfolio?

As from 2010, our reputation among Taiwan's biotech sector has been skyrocketing. People would come to me for advices, mostly with regards to "strategic thinking", as we can help them prioritize their product development.

All teams need somebody to guide them in such a long and risky development process. To do so, I usually ask the managing teams of these companies to set up a two-day strategic meeting. This allows me to gauge the chemistry and interactions among the team, while getting a better understanding of their development hurdles to establish the ones that should be tackled in priority and the next steps we need to consider.

It is particularly challenging for CEOs and their teams to avoid being trapped in the daily routine of the day-to-day operations. In young, emerging companies, all key decision-makers are extremely busy. Although it is crucial for their company, they usually struggle to find the time to take a step back and truly envision what should be the mid-term future of their companies. As investors, we can bring an external dimension to their strategic thinking and leverage our industry experience to broaden and strengthen the development options their companies should consider.

Many industry observers advocate greater support for locally-developed products, especially in terms of pricing. Do you think favorable pricing would truly help local R&D-driven companies to thrive?

The first fact to highlight is that Taiwan's domestic market is too small to truly support the development of our companies. As a matter of fact, all Taiwan-based companies already integrate the strategic objective to bring their treatment to the Chinese or US markets in the early conception of their drug development approach.

Many industry insiders claim that – in order to support our vibrant biotech industry – we need to introduce more favorable pricing policies for locally developed products. Of course, I would warmly welcome any kind of additional support initiated by the Ministry of Health and the NHIA.

Nevertheless, I don't consider this aspect as potentially game changing. Even if Taiwan's health system offered better prices to our industry, our country's market still remains too small to really support its development. The true and only success factor for our locally-based companies is their ability to develop treatments, from preclinical stage to late-stage trials, in all key markets in the world, including the most challenging ones from a regulatory standpoint.

Recent success-stories prove that many of our companies have already managed to turn this strategic ability as a competitive advantage, but this clinical development capacity needs to be

further nurtured and supported. For Taiwan-based companies, local pricing will never be a primary success-factor- the key determinant for success is our ability to operate overseas.

How would you summarize YFY Biotech Management Company's contribution to the dawn of Taiwan's biotech industry?

As a fund specialized in the biotech industry, we definitely entered this industry at the worst moment possible: the market was extremely flat and companies were struggling to emerge from the early development stage.

Although we came at the worst time from a financial standpoint, I think that – for my company and Taiwan's biotech sector in general – we however stepped in at the right time. More than ten years ago, nobody would believe in the chances of our biotech startups, and YFY played a crucial role in ensuring these companies could access the financial and strategic resources they needed to continue their development.

Our role goes beyond investment, as we truly incubate companies we believe in. This applies to early-stage companies but also to the most established ones of our portfolio: we strive to provide them all of them with the most comprehensive support we can to increase their chances of success.

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