Gene Shigekawa – Managing Partner, MAZ World, Hong Kong



"We believe the innovation in antibody technology we bring can have a significant impact on society"

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Gene Shigekawa, managing partner of MAZ World, shares their recent move to the Hong Kong Science and Technology Park (HKSTP) in 2017, the revolutionary ostrich-derived antibody they hope to further develop and commercialize, the strengths of Hong Kong as a biotech base for start-ups, and the huge potential for their technology in both beauty and healthcare, particularly preventative healthcare.

As a Japanese company, what prompted MAZ World's move to Hong Kong and the Science and Technology Park (HKSTP)?

Our company has been in Hong Kong since 2012 and decided to move to HKSTP in 2017 to focus more on R&D and commercialization activities. Japan is somewhat a closed market and inaccessible for international business development. Before we came to the HKSTP, we met with the Japanese ambassador here in Hong Kong, who recommended us to become a tenant of the park. We are fortunate that the Head of BioMedical Technology Cluster of the HKSTP is very excited about the IP and biotechnology we bring. As of now, we are the only Japanese BioMedical technology to be housed in the HKSTP.

We believe the innovation in antibody technology we bring can have a significant impact on society, therefore we wanted to jumpstart several projects simultaneously. The financial dynamics

in Hong Kong is very attractive, in addition to the opportunity to access the mainland China, one of the biggest emerging markets in the world. The challenge we face is that the regulatory system in China is very different from those in the rest of the world. However, as a tenant of HKSTP, all of the results of any research done here will be recognized by the Ministry of Health in China. Therefore, our operations here in Hong Kong can be considered the MAZ World hub for international development.

What makes the ostrich antibody unique compared to traditional biotechnology?
This new antibody is one of the most innovative technologies in Japan. It is patented worldwide and has been endorsed by the Japan Science and Technology Agency (JST).

The process involves injecting ostriches with specific antigens and harvesting the antibodies from their eggs. Traditionally, antibodies are extracted from the blood of small animals such as rabbits or mice, which involved incarceration of the animals. With this new technology, we aren't only saving animals' lives, in fact one unfertilized Ostrich egg can provide the same amount of antibodies equal to 800 rabbits.
The ostrich antibody is also more resilient than those of small mammals. It is resistant to higher pH levels and can remain active even when exposed to heat of up to 100 degrees Celsius. This is a huge benefit in distribution. In markets such as Africa, where the logistics are feeble and daily temperatures are high, our antibody technology can remain active and products such a HIV testing kit, will not be damaged.

What are the potential uses of this new technology?
The ostrich antibody has been researched in Japan for over 20 years by Professor Yasuhiro Tsukamoto. The initial commercialization for the antibody in Japan was for use in skincare products and flu masks. However, there are many different applications for this technology. One example of the diverse uses of the antibody is as a weight loss solution. The antibody can be used to control digestive enzyme and block the body's absorption of sugars and fats from daily food consumption. This way, consumers can detect the results without having to make drastic changes to their diets and disrupt their lifestyle.

Moving forward, our focus lies on preventative care rather than treatment. For example, in Japan we are using the antibody to create a spray to defend against pollen allergies. Our current priority in Hong Kong is to launch a flu mask product into the Chinese market. Influenza is one of the leading causes of death worldwide and there have been several outbreaks of avian influenza reported in China, including Hong Kong, so we believe there is a clear medical need in the region.

In general, I am very happy that the technology we bring can benefit consumers internationally in both beauty and healthcare. As we continue to develop new uses for the antibody, we will continue to expand our business into overseas markets. There is a global demand for new innovations in health and wellness, and I believe our ostrich antibody offers exactly the solution.

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