

# Glycyrrhizin experts target orphan diseases responding to various inflammatory-related issues

Minophagen Pharmaceutical has an established reputation as an anti-inflammatory research and development company and is now utilizing this expertise to target not only orphan diseases, but also COVID-19 symptoms.



"We are seeking partners outside Japan with a new medicine that has already been marketed as a niche product."

Dr. Tokuichiro Utsunomiya,  
President & CEO, Minophagen  
Pharmaceutical Co., Ltd.

Founded in 1938, Minophagen Pharmaceutical has been building its focus on penetrating niche markets rather than competing directly with the behemoths of the global industry. Identifying the appropriate partnerships, based on examples observed elsewhere, is a key objective for company president and CEO Dr. Tokuichiro Utsunomiya.

"For a long time, Japanese pharmaceutical companies have tried to have a R&D pipeline without collaborating with major pharmaceutical giants," says Dr. Utsunomiya. "Many have realized that rejecting that approach will make finding a market for their medicine outside Japan difficult.

"We are seeking overseas partners with a new medicine that has already been marketed as a niche product, especially for orphan diseases. The number of patients may be very small, but they really need those treatments. Japanese patients are longing for niche medicines that are yet to be developed."

The COVID-19 pandemic proved to be an interesting time for Minophagen and a period when, despite the downturn in sales for its injection product, a



Zama factory in Japan



Plastic ampoule line



Research laboratory 1

number of inquiries for its glycyrrhizin ones arrived.

"Glycyrrhizin was approved by the Japanese government in 1948 as having satisfactory efficacy in alleviating nose allergies and hay fever as well as treating chronic liver disease," the president recalls. "It was very difficult, however, to provide the data for the authorities in Europe and the U.S. to understand, and there are a variety of differences in the way Asian countries differ from them in these processes.

"Minophagen initially concentrated on anti-inflammatory drug development and treatment for the liver, but we have recently expanded to skin products like ointments for skin inflammation. We had been conducting a co-promotion with Miyarisan Pharmaceutical for skin diseases which have the same mechanics, including glycyrrhi-



Glass ampoule line



Research laboratory 2

zic acid, and later we moved to Targretin. Our image is of an anti-inflammatory company."

Expansion across Asia and beyond remains a fundamental goal in the short-to-mid-term and Dr. Utsunomiya is targeting a number of collaborations.

"Mainland China is without a doubt our key market outside Japan. Our new product, Targretin, will be going through a clinical study shortly this year and we hope to realize the commercialization of it as an orphan drug within a couple of years. We are aiming for market expansion in Indonesia, South Korea and other Asian countries for our glycyrrhizin products as they have good market potential. We are also looking to collaborate with new companies, with Targretin a primary focus."

Minophagen is specifically working with a biotech com-

pany in Taiwan on AC-203, which treats epidermolysis bullosa.

"We are first looking to market this product in Japan," confirms Dr. Utsunomiya. "It is a very niche market and probably an orphan drug, making it a great product for us to develop. Furthermore, we are searching for synergy so that the same doctors can see patients with the same disease. The key is that patients in Japan are in need of those products for skin diseases. We hope it will be finished within a year, and we are in the process of negotiating with the relevant government sectors.

"We are endeavoring to expand our business in collaboration with local companies. Instead of becoming a major company like AstraZeneca or Pfizer, we want to remain a smaller company in the area with unique technologies and sales channels.

"Through these collaborations with local partners, we plan to pursue the relevant business licensing. Our already established network through our products of SNMC and GLT have created a global sales channel across 11 countries. We want to fully utilize that network in providing new types of drugs."

In terms of the future of the family-owned company, a succession plan appears to be a solid foundation.

"I want to achieve the sustainability of our business toward becoming a 100-year-old company," says Dr. Utsunomiya. "Maybe in 10 years, you can interview my son as the fourth-generation president of our family-owned company.

"Most important is our vision of looking after the health and welfare of our patients with our medicine, research and focus on the niche market. Even as a small company, our goal is to do everything we can and give our best for our patients in Japan and overseas."