Aiming to be a Global Niche Top Company in Healthcare

Using the finest technologies, Alps Pharmaceutical extracts only the active ingredients from plants and herbs to develop high-quality pharmaceutical, food and cosmetic products.



"We are a company moving forward with a self-contained business, from the cultivation of medical plants through the extraction of active components"

Osamu Ushimaru, President, Alps Pharmaceutical

The spectacular mountain range in Japan's Hida region, known as the Northern Alps, has long been valued for its rich abundance of native plants and herbs. And it is there where the roots of one Japan's leading API (Active Pharmaceutical Ingredient) manufacturers can be traced.

Established in 1947 and borrowing its name from those same mountains where it began extracting herbs over seven decades ago, Alps Pharmaceutical combines its expertise in traditional medicine and prowess in modern science and innovation to turn nature's bounty into a vast range of pharmaceutical, food, supplements and cosmetic products.

Alps operates a fully integrated production model, farming high-quality medical plants right through to the final production of active ingredients using its own original purification technologies. Through its integrated skill, unique equipment and clever use of solvents, the company has been able to achieve extractions once seen as impossible. In particular, one of its strengths has been purifying solely the active ingredient from a natural plant extract, for example, Sennoside from Senna and Capsaicin from chilli peppers.

"There is an episode supporting our integrated know-how. Kampo medicine is based on traditional Chinese medicine that was imported and developed in Japan in the 5th century and the most important characteristic is that it has many active components. However, the Japanese government strictly regulates the relative ratio of the each active component and it is very difficult to comply with the specifications," explains president, Osamu Ushimaru.

Alps has long been supplying Big Pharma with a wide range of Kampo ingredients. But several years ago, one company attempted to produce some of these medicines by themselves in China.

"We kindly gave information to encourage them to make these drugs but even then it was very difficult due to the surrounding regulations. They spend many years attempting to establish production, but it proved very difficult even with access to the same protocols," adds. Mr Ushimaru.

"Hence, it is our know-how that truly differentiates Alps from other companies. There is no special technology at Alps. Companies have similar technologies and that is why our technology itself is not unique, but nobody has our know-how in assembling technology. The power of assembling technology is at the core."

Alps holds the number one global market share for Capsaicin, which can be found in pain relief and psoriasis medication, and Sennosides, which are used in laxatives. Meanwhile, Rutin, a powerful anti-oxidant bioflavanoid contained in a wide variety of vegetables and fruits, and Glycyrrhizin, a flavoring agent in foodstuffs and cosmetics, are other products in which Alps holds a strong global market share.

But these are just four examples from Alps Pharmaceutical's enormous portfolio of products and extracts used by pharmaceutical, food and cosmetic manufacturers. Not only does Alps supply the highest-quality active components, it also works hand in hand with clients on the development and the optimization of new pharmaceutical drug candidates, supporting them at every stage, from clinical trial to commercial production.

"Our company's mission is to supply high-quality drug substances at a low cost to encourage widespread use of our products. Even though our sales volume is somewhat small, when we factor in maintaining public health and addressing varying stages of health, our value add is at par with larger companies," says Mr.Ushimaru.

ALPS is following a self-contained business model carried out by Merck (Germany) until the early 2000s, from the cultivation of medical plants through to the production of active components from those plants.

"This is an important strength for our goal to become a world-leading niche player," says Mr. Ushimaru. "However, we need another factor inaddition to the self-contained business model, which is being a self-run business by developing our new own brand product. We are focusing on Alps' strengths – flavonoids, which are abundant in nature and have various biological functions."

Recently, natural flavonoids have attracted much attention across the pharmaceutical, cosmetic, and nutraceutical industries. However, these flavonoids have a significant problem in low water solubility, which typically exhibits as poor oral absorption and insufficient therapeutic effects.

"The market badly wants the high-solubility flavonoid. Therefore, the first thing was to develop a new practical method for producing compositions of flavonoids with improved water solubility. It took us three years during which solubility was enhanced by 2,000 times, which led to a significant improvement of oral absorption in a human clinical study," says Mr.Ushimaru.

"In this way we have developed a revolutionary product, named EubioFlavonoids $^{\text{TM}}$, as the first ALPS brand product and also the first step towards our goal."

ALPS EubioFlavonoids™ Delivery System

ALPS EubioFlavonoids™ support your healthy and active life

> Eubio Rutin Eubio Isoquercetin



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