

Interview with Executives at King SkyFront No.7

Kazuya Onomichi, MBA, Ph.D.

**Corporate Vice President General Manager R&D Planning Dept.
AJINOMOTO CO., INC.**

Our company makes amino acids and studies their functions.

What if the concentrations of amino acids were actually measured in the blood of animals?

A researcher came up with this idea.

Will there be a difference between the measurements taken from healthy and unhealthy mice?

The result was that there was a marked difference.

But the reason was unclear.

But there was a chance it could be used as an indicator of people's health.

That was what prompted our research.

Amino acids actually play extremely vital roles in the human body.

Amino acids make up the proteins, which make up our bodies.

Amino acids are invariably involved in the biological activities of our bodies, such as metabolism.

They are what keep us alive.

So, focusing on changes in our amino acid levels can be applied to diagnosing the state of our health or illnesses.

Based on this assumption, we went through trial and error to ascertain that this is actually possible.

This enables medical checkups that are totally different from traditional methods.

In other words, it has given birth to a totally new concept in technology for ascertaining people's health.

It is the "AminoIndex®".

Traditional methods of measuring amino acids required around two hours per sample.

So, only a few samples could be checked on one machine per day.

We succeeded in taking measurements in just 10 minutes.

Cooperation with other manufacturers also boosted sensitivity.

Taking accurate measurements of amino acids requires them to be in a fresh state. Amino acids become unstable when samples are left to stand. A method of analysis had to be established for making accurate measurements. There were difficult issues that had to be overcome. In our first experiment, we put the samples in ice. We tried to stabilize the amino acids by cooling them. Leaving the samples at normal temperature for many hours results in inaccurate data. So we jointly developed the “cube cooler®” that enabled low-temperature storage of samples over a long time, and allowed their efficient handling even at hospitals and other places. This device was developed in collaboration with a company in Kanagawa Prefecture with unique technology. It was thanks to this kind of cooperation that we managed to establish the new AminoIndex technology.

Kawasaki is a region with a lot of accumulated knowledge. It's also located conveniently close to Tokyo. It's blessed with being near the geographical center of Japan. It has the advantage of being conveniently situated for industry-academia-government cooperation. During the process of developing “AminoIndex®”, the clinical data was actually gathered mainly by universities and hospitals in Kanagawa Prefecture. The device too, was developed jointly with a small-to-medium-sized company in Kanagawa. I think this is the way in which the location of Kawasaki has a geographical advantage.

The greatest expectations I have for King SkyFront(KSF) are fusion between different fields. All kinds of technologies and functions will gather in one place, and become coordinated. And I expect this will become the driving force behind new ideas in the future.

Our company deals in food and life sciences, but Kawasaki has companies from a variety of industries from well-known electronics manufacturers to machine manufacturers.

In terms of research too, there are organizations involved in pioneering work in specialized fields.

Cleverly coordinating these different groups will give rise to unique technologies.

There's great potential that we can look forward to.

The area will also play a role in disseminating information throughout the world.

I want to go beyond what we can achieve as a single company.

My dream is to develop new technologies and businesses that will help people all over the world.

That's why I want to be a part of this initiative.

There's a limit to what individual companies and people can do.

So I'd love to see this area contribute to the world through fusion.

When you box yourself in, you limit your potential to create new things.

I think the combination of experience, open initiatives, and fusion with other fields, will give rise to unique ideas.

It would be amazing to be able to create new things that contribute to the world, here in Tonomachi of Kawasaki.

KSF has the environment that will allow this.

We too, are going to do our best.

We are looking forward to working in cooperation with others.