

## PROMOTING INDEPENDENCE: Worries about father's mouth helped overcome 'valley of death'

By HIDEO SATO/ Staff Writer

March 3, 2017 at 07:10 JST



Daisuke Teshima, right, president of Trife Inc., and Kohei Nagatoshi, who heads Yasashii (kind) Laboratory Inc. (Provided by Trife Inc.)

*Editor's note: This is the second of a three-part series on the integration of business and social welfare.*

Kohei Nagatoshi was at his wits' end.

His company was losing faith in his decade of research into "nisin A," a peptide created by a plant-derived lactic acid bacterium. A breakthrough was nowhere in sight.

In winter 2011, a desperate Nagatoshi sent an e-mail to a stranger, Daisuke Teshima, 46, the president of Trife Inc. in Yokohama. The researcher had heard that Teshima started an organic cosmetics brand.

About two months later, the two met in Tokyo. Nagatoshi had prepared his pitch to work with Teshima in creating and commercializing a new natural cosmetic by using nisin A.

But Teshima was not convinced.

"I could not understand the significance of the research, and I had suspicions that I might be used," Teshima said.

He limited his relationship with Nagatoshi to e-mail exchanges.

The situation, however, changed about a year later when Teshima's father was diagnosed with terminal cancer.

Nagatoshi had always wanted to create products that were "kind" to people. That's why he named his venture firm Yasashii (kind) Laboratory Inc. Headquartered in Chikushino, Fukuoka Prefecture, in western Japan, the laboratory has only a single researcher: Nagatoshi, 45.

He began the company five years ago.

Nagatoshi was working for a dairy product manufacturer in Fukuoka when he was involved in nisin A research in cooperation with Kyushu University and others.

The substance was used widely as a food preservative, but Nagatoshi was looking for a use for a purer form of the substance that could be mass-produced.

It was Teshima who came up with the idea for a new application.

Struggling against cancer, Teshima's father developed severe oral ulcers, and mold grew within his mouth. His ability to gargle and spit out liquids weakened, leading him to mistakenly swallow anti-bacterial agents that caused diarrhea.

Teshima realized the importance of oral cavity care for elderly people and asked Nagatoshi about the possibility of using nisin A not for cosmetics but for a teeth-brushing gel.

If such a gel was safe to swallow, there would be no worries about the ill effects from mistakenly ingesting it.

Moreover, the product could address the issue of finding stable jobs for disabled people and help to alleviate the problem of what they should do after their parents die.

The idea was to employ disabled people at facilities around the nation to sell the brushing gel. Strong demand for the product was expected in Japan's aging society.

Although nisin A worked on bacteria that causes cavities, it had no effect on periodontal bacterium, which affects the gums.

Through trial and error, Nagatoshi overcame that deficiency by developing "neonisin," which contains plum extract to deal with the periodontal bacterium.

Nagatoshi sent Teshima a trial product, which was used on his father. The father developed no stomach problems even when he swallowed the substance. Teshima then believed he could commercialize the product.

Nagatoshi established Yasashii Laboratory to push commercialization and obtained a patent for neonisin.

In the world of venture firms created through business-academia cooperation, the term "valley of death" describes a situation in which commercialization of research results goes nowhere because of poor coordination between the two sectors.

Kenji Sonomoto, a professor of agriculture at the Kyushu University graduate school who conducted research with Nagatoshi, said, "Teshima was a huge presence in being able to overcome the valley of death."

Venture firms with no sales networks often rely on the Internet for sales. But because of his past volunteer experience, Teshima already knew a number of individuals connected to facilities for disabled people.

He had a few things he could teach researchers, such as how to recruit supporters using social networking services.

Teshima's father once worked as a prosecutor. He died toward the end of 2012.

Seven months later, Oral Peace hit the market. But sales problems arose.