



Shoko Takahashi, President of Genequest Inc.  
Photo: Masatoshi Sakamoto

# Gene Analysis for All

**A gene analysis service developed by a female graduate student at the University of Tokyo is helping to change lifestyles and prevent diseases.**

**HIROSHI SAKURAI**

**I**N 2014, a large-scale gene analysis service was launched for the first time in Japan. Shoko Takahashi, a graduate student at the University of Tokyo and the president of Genequest Inc., devised the service, which enables members of the public to confirm their gene information

with the use of a simple kit. The service is useful for the prevention of diseases and health management, as well as for the development of gene research generally.

At a laboratory at the graduate school of the University of Tokyo, Takahashi carried out research into the prevention of

lifestyle-related diseases on the basis of gene analysis. In university research work, however, gene information is not in principle released to individual examinees. There are restrictions on using the gene information obtained for anything except for the target diseases. It also costs a lot of money to gather data from examinees.

Takahashi says, “Data on many people are necessary for the development of life science. In order to return research results widely to society through business, we gather data from as many people as possible and develop life science further as a result. I started this business to construct a system for creating synergetic effects by such business and research.”

Takahashi founded Genequest in 2013 as a graduate student to conduct gene analysis for the general public with her coworkers at the laboratory. She had no job experience and learned about business management from books. She faced numerous difficulties in starting the business, however. She had no one to turn to, and actively asked for advice from university professors and corporate managers when participating in academic conferences and lecture meetings.

Takahashi says, “As a student, I asked for advice on starting business, but most people did not listen to me. Some did kindly offer me some advice, however. Such chance meetings enabled me to establish Genequest, and I have been supported by many people since I started.”



users who have already undergone gene analyses free of charge so that they can utilize those data as well. Needless to say, because gene information is the ultimate in personal information, the company is strictly examined by the Ethics Review Committee consisting of outside members, including lawyers, university professors and doctors.

The steps for undergoing gene analysis are simple. First, the user purchases a gene analysis kit from the website of the company. He or she places a saliva sample in the tube provided in the kit and sends it back, and the analytical results can be viewed on the website four to six weeks later. The targets of analysis include about 300 items including diseases, constitutions, figures and characteristics. The user can get to know their own gene information, such as muscle, fat level, patience, memory and the possibility of living to be 95 years old, as well as disease risks, including diabetes, cancer, insom-

nia, glaucoma, bulimia and gout.

Takahashi says, "We received feedback from users advising that they would try to improve their lifestyles from now on. Individuals must make an effort to prevent diseases in order to increase their individual healthy life spans, which is a significant issue in the aging society, and curb national medical expenses. Gene information can be used for this purpose."

With gene analysis technology making progress, the number of items handled by Genequest has been increasing every year. The company provides the analytical results of the additional items to

To analyze the causality between genes and diseases, constitutions and characters, Genequest conducts surveys of users who agree to participate and gathers information about their health condition, blood sugar levels, color of eyes and height. Based on the data on analyzed gene information and answers, the company carries out about ten joint research projects with universities and other companies, such as the relationships between profession-induced stress and genes and the relationships between the effects of foods on health and genes.

Takahashi says, "We will conduct further research into the area of health care, such as exercise, diet, sleeping and cosmetics, whose relationships with genes have yet to be examined in detail." She aims to grow the company into Asia's largest gene analysis company by establishing bases in multiple Asian countries.

The economy is developing rapidly in Asia, and people are becoming more and more conscious of personal health. A business launched by a female graduate student in Japan just a few short years ago is ready to serve Asian markets. 



Analysis of gene information using DNA obtained from saliva using the Genequest gene analysis kit

Photo: Courtesy of Genequest