

## Research Paper Prepared by NIBIOHN, a Research Partner of Denka Seiken, Is Chosen to Be Featured in *Scientific Reports*

Denka Company Limited (headquarters: Chuo-ku, Tokyo; president: Manabu Yamamoto; hereinafter "Denka") hereby announces that the research findings of National Institutes of Biomedical Innovation, Health and Nutrition (director general: Yoshihiro Yoneda; hereinafter "NIBIOHN"), a research partner of core Group company Denka Seiken Co., Ltd. (headquarters; Chuo-ku, Tokyo; president: Mitsukuni Ayabe; hereinafter "Denka Seiken"), were selected for publication in the prominent science magazine *Scientific Reports*.

On April 1, 2017, Denka Seiken signed a joint research agreement with NIBIOHN for the development of a diagnostic reagent employing a marker for colorectal cancer. On October 6, the web edition of *Scientific Reports* featured the findings of research undertaken by NIBIOHN in which Dr. Takeshi Tomonaga as project leader and Dr. Takashi Shiromizu played primary roles in carrying out proteome<sup>1</sup> research and targeted proteomics research.

Under this project, Dr. Tomonaga and Dr. Shiromizu reported significant findings with regard to a biomarker<sup>2</sup> protein, which was found to help provide early-stage colorectal cancer diagnosis with an accuracy that is considerably superior when compared with conventional tumor markers.

Acting as NIBIOHN's research partner, Denka Seiken plans to develop methods for measuring the biomarker protein that has been identified as being useful for colorectal cancer diagnosis through the aforementioned research project, aiming to commercialize a diagnostic reagent employing this marker in five years.

The Denka Group is actively engaged in operations related to healthcare. For example, the Group markets diagnostic reagents that detect helicobacter pylori bacteria to assess stomach cancer risk. Moreover, the Group established Denka-KEW Genomics, a subsidiary that provides gene alteration analysis and cancer remedy information services, to expand into the field of cancer diagnosis. In addition, a facility for mass-producing the G47 $\Delta$  oncolytic virus was completed as part of initiatives to gain footholds in the field of cancer treatment. Looking ahead, we will strive to help promote the aforementioned research project and the utilization of said biomarker, thereby contributing to the advancement of medical technologies and the betterment of people's quality of life.

## Title of research paper

Quantitation of putative colorectal cancer biomarker candidates in serum extracellular vesicles by targeted proteomics Authors: Takashi Shiromizu, Hideaki Kume, Mimiko Ishida, Jun Adachi, Masayuki Kano, Hisahiro Matsubara, Takeshi Tomonaga

Website of the National Institutes of Biomedical Innovation, Health and Nutrition

http://www.nibiohn.go.jp/information/nibio/2017/10/005286.html (Japanese)

## The name of the magazine that featured the research findings

Scientific Reports (web edition)

## Notes:

- 1. "Proteome" is neologism that combines protein and genome. While a genome is an organism's complete set of genetic information, a proteome is all the proteins present in a cell. Hence, proteomics refers to the analysis of proteomes.
- 2. "Biomarker" refers to a protein or other substance that serves as an indicator to help diagnose specific diseases. In general, the density of such a substance in a patients' blood reflects the existence of such a disease or the degree of the disease's development.

For inquiries:
Denka Company Limited CSR & Corporate Communications Dept.
TEL: +81-3-5290-5511 E-mail: csr-koho@denka.co.jp
For inquiries from medical service providers:
Denka Seiken Co., Ltd. New Business Planning Dept.
TEL: +81-3-6214-3231