September 20, 2016

Denka Co., Ltd.
Denka Seiken Co., Ltd.

Denka Seiken to Expand Its Healthcare-Related Operations via a Business Alliance with the Taiwan-based PlexBio Co., Ltd.

Denka Co., Ltd. (headquarters: Chuo-ku, Tokyo; president: Shinsuke Yoshitaka; hereinafter "Denka") hereby announces that Denka Seiken Co., Ltd. (headquarters: Chuo-ku, Tokyo; president: Tetsuro Maeda; hereinafter "Denka Seiken"), a core Denka Group subsidiary, has signed a business alliance agreement with PlexBio Co., Ltd. (hereinafter "PB"),[1] the Group's strategic partner headquartered in Taiwan. With the signing of this agreement, Denka Seiken was granted exclusive marketing rights for IntelliPlex®,[2] a protein and gene measurement system developed by PB, in Japan and the ASEAN region. Moreover, Denka Seiken acquired rights pertaining to the development and sale of diagnostic reagents used in said system.

An epoch-making analyzer based on a π code technology[3] that utilizes a combination of semiconductor manufacturing technology and biotechnology, the IntelliPlex® automation system enables the simultaneous analysis of multiple items with a simple procedure in a shorter measurement time compared with conventional systems. The main features of this system include:

(1) Capacity to simultaneously analyze approximately 100 individual target items per sample;
(2) Applicability to the immunoassay method[4] and the molecular method[5];
(3) Highly sensitive detection ability even when engaging in multiplex-assays thanks to the use of image recognition technologies, and;
(4) Suitability to small- and mid-sized medical institutions thanks to a compact and automated operational interface.

These features are expected to meet the expectations of healthcare professionals in need of a quick solution for analyzing multiple protein and molecular targets with a simple procedure and greater accuracy. For example, when treating a patient with diarrhea, which may develop through infection with norovirus, rotavirus or campylobacter as well as through other causes, the use of the system helps diagnose the cause of the symptom with a single examination.

The commercialization of an immunoassay system for the simultaneous measurement of multiple items is a groundbreaking achievement. We are therefore convinced that the integration of technologies supporting IntelliPlex® and expertise that Denka Seiken has long cultivated in the field of immunoassay diagnostic reagents, will help us bring new possibilities to clinical examination. Furthermore, this new

agreement allows Denka Seiken to utilize a platform for molecular testing measurement—an asset the Denka Group had never possessed previously—and thereby enables entry into new fields of diagnostic solutions.

Looking ahead, Denka Seiken will strive to resolve various challenges confronting healthcare professionals through the popularization of this system. In this way, we will help prevent diseases and contribute to the wellbeing of people around the world.

In line with the Denka100 management plan growth strategies, Denka is focusing its management resources on growth drivers and the development of next-generation products. Having positioned the healthcare field as one of the Group's growth drivers, Denka endeavors to expand its relevant operations with three key priorities, namely, cancer treatment, gene diagnosis and health examination, thereby engaging in the selection and concentration of its management resources. Going forward, we will accurately meet market needs, help resolve issues confronting society and thus live up to the expectations of our stakeholders.

Main content of the agreement with PB:	Licensing of π code technology Exclusive marketing rights for IntelliPlex® (in Japan and ASEAN nations)
Estimated sales of products related to IntelliPlex®	¥2.0 billion to ¥4.0 billion

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(1) Company name	PlexBio Co., Ltd.
(2) Main business	Development, manufacture and sale of medical equipment and biotechnology services
(3) Establishment	December 17, 2009
(4) Headquarters	Taiwan
(5) Representative	Dr. Dean Tsao
(6) Capital	Approximately ¥1,640 million
(7) Employees	Approximately 70

2. and 3.

The IntelliPlex® system and π code technology:

The π code technology uses a specially processed magnetic micro disc. Semiconductor manufacturing technologies engrave bar code patterns on the surface of the magnetic micro disc, with which, probes for antibody and gene measurement are attached to help identify the target substances under examination. This advanced technology thereby enables simultaneous multiplex assays.

The IntelliPlex® system is capable of highly sensitive detection as well as the simultaneous analysis of multiple items thanks to the combination of the π code technology and measurements based on fluorescence spectroscopy. This widely adopted method utilizes fluorescent tagging to analyze substances under examination. The measurement of fluorescence is highly sensitive in detecting the substance of analysis, but the standard technique is incapable of measuring multiple items at the same time. To overcome this difficulty, the IntelliPlex® system uses image recognition technology to process the bar code patterns engraved on the surface of the disc, thereby succeeding in the measurement of multiple items.

4. The immunoassay method: By using antibodies, which recognize and bind with particular antigen molecules, this method is capable of measuring a targeted protein in a highly specific manner. The method is widely used in the field of diagnostic reagents.

5. The molecular method: By utilizing the affinity between a pair of certain base sequences, this method is able to perform highly specific measurement of targeted genes. Boasting significant potential for highly sensitive measurements, the method is attracting growing attention for future applications.

Note: For more details of PlexBio, the IntelliPlex® system and π code technology, please also visit PlexBio's corporate website (http://www.plexbio.com).

External appearance of IntelliPlex® 5000