

July 19, 2018

MITSUBISHI GAS CHEMICAL COMPANY, INC.

**MGC invests in three companies to accelerate
medical business development**

Mitsubishi Gas Chemical Company, Inc. (MGC; Head Office: Chiyoda-ku, Tokyo; President: Toshikiyo Kurai) has invested in three companies engaging in medical business development.

In recent years, medical industry is paying increasing attention to sophisticated technologies that improve the quality of medical care and quality of life. For example, rapid diagnosis facilitates for early treatment/care, while regenerative medicine makes it possible to eliminate the very cause of the disease or injury in question by reproducing tissues and organs using cells and tissues cultured in vitro. The market for such techniques is expected to grow rapidly in the future.

Precise forming technology is required to reduce the size and increase the functionality of test/diagnosis devices used for rapid diagnosis. Expecting to fully leverage its chemical and material expertise in this field, MGC is investing in CONSONAL BIOTECHNOLOGIES Co., Ltd., Japan's largest comprehensive research institution "RIKEN" certified venture, and WhiteSpace Enterprise Corporation, a venture created from innovation at the University of Arizona to conduct research and development of biomolecular technologies with a view to entering the market in the future.

Also, MGC's investment in NC Medical Research, Inc., a research and development specialist in regenerative medicine, is to survey opportunities to create a business using MGC technology in the field.

Under its Medium-term Management Plan "MGC Advance2020", MGC defines the medical/food field as one of five target fields of business to focus on. In connection with medical, MGC has a broad range of products and technologies including oxygen absorbers for medicine and medical equipment, multilayered plastic containers for medical use, and techniques related to antibody and nucleic acid medicines. The investments in the three companies will help MGC develop its medical/food field even further.

<Investment Overview>

1. CONSONAL BIOTECHNOLOGIES Co., Ltd.

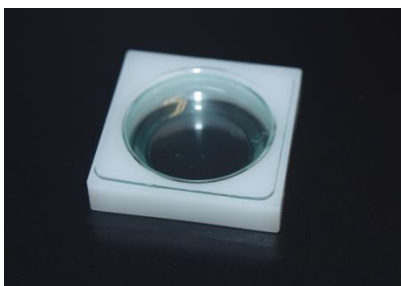
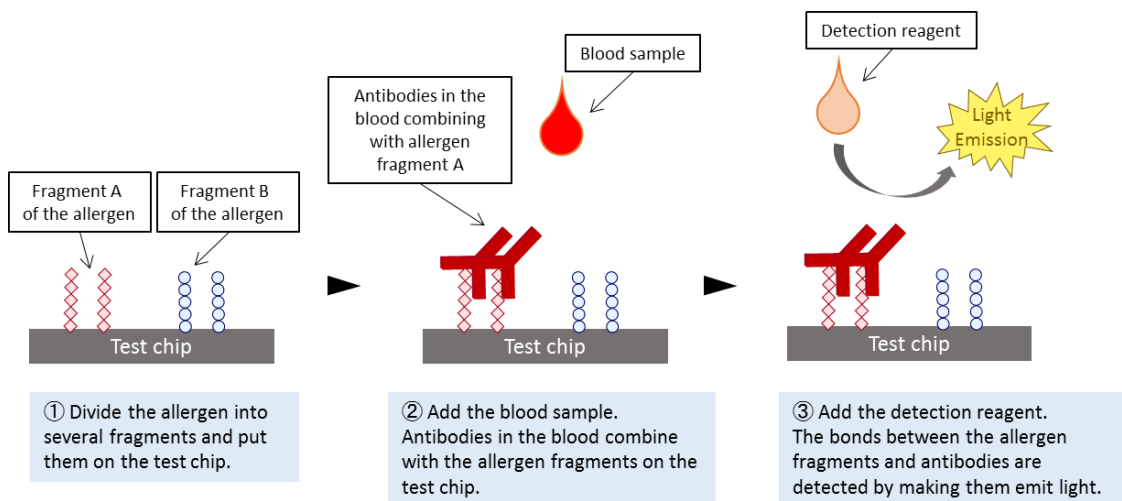
Company name:	CONSONAL BIOTECHNOLOGIES Co., Ltd.
Location:	Mitsubishi Building, 5-2 Marunouchi 2-chome, Chiyoda-ku, Tokyo, Japan (the same building with MGC)
Business description:	Development of allergy test chips*
Established:	January 2018

Capital: 13 million yen
Investment: April 2018
Purpose: Devote MGC business resources to strengthen joint research and thereby enable the launch of allergy test chips in 2021.
Remark: The venture is now an MGC subsidiary.

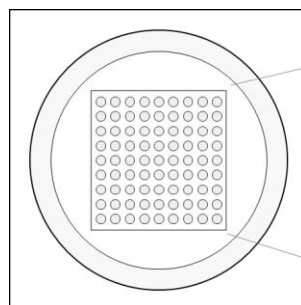
*Note: Allergies, also known as allergic diseases, are conditions caused by hypersensitive immune reactions to substances such as pollen and food ingredients. Typical allergic symptoms include runny noses, diarrhea and hives. These immune reactions are caused when allergic substances combine with antibodies. The traditional blood testing of allergies addresses the reaction that antibodies from the patient develop in an allergen extract (solution containing the allergic substance). The drawback is that the complexity of the process by which the symptom appears can prevent the test results from correctly reflecting the symptom.

MGC and CONSONAL BIOTECHNOLOGIES have developing the test chip which divides the sample allergen into fragments and identifies the part of the allergen that combines with antibodies. The new test chip facilitates rapid testing and provides highly accurate information using a small amount of blood and can therefore be used to test small children. MGC's material and forming technology helps stable performance and the possibility of mass-production.

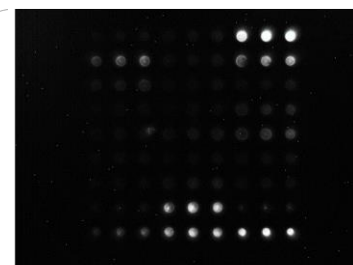
▼Test Flow



Test chip



Schematic diagram of the test chip



Test results

2. WHITESPACE ENTERPRISE Corporation

Company name: WHITESPACE ENTERPRISE Corporation
Location: 1305 W Auto Drive Tempe, AZ 85284, USA
Business description: Commercialization of technologies developed by the University of Arizona and other institutions, including disease diagnosis devices and small automatic processing equipment
Established: 2007
Capital: 15.8 million US dollars
Investment: March 2018
Purpose: Establish joint development to jointly enter the market for medical test equipment
Remarks: MGC will conclude a joint research agreement with the University of Arizona, the founder and technical advisor of WSE, under which MGC researchers will be sent to the laboratory of Professor Frederic Zenhausern.
Website: <http://wsecorp.com/>

3. NC Medical Research, Inc.

Company name: NC Medical Research, Inc.
Location: 17F Shiroyama Trust Tower, 3-1 Toranomom 4-chome, Minato-ku, Tokyo, Japan
Business description: Research and development of mesenchymal stem cell-based regenerative medical technology to treat acute-stage cerebral infarction
Established: December 2004
Capital: 305 million yen
Investment: April 2017
Purpose: Explore opportunities to enter the regenerative medical market

End

INQUIRIES

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