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Innovation Network Corporation of Japan  
Dainippon Sumitomo Pharma Co., Ltd.  
Japan BCG Laboratory

### **Joint Investment into Create Vaccine Company, Ltd.**

Innovation Network Corporation of Japan (Head Office: Chiyoda City, Tokyo; President and CEO: Kimikazu Noumi) (“INCJ”), Dainippon Sumitomo Pharma Co., Ltd. (Head Office: Osaka, Japan; President: Masayo Tada) (“DSP”) and Japan BCG Laboratory (Head Office: Bunkyo City, Tokyo; President: Noboru Hagiwara) (“Japan BCG”) jointly announce that the three companies have invested a total sum of 845 million yen (INCJ: 283.05 million, DSP: 281.35 million, Japan BCG: 280.6 million) into Create Vaccine Company, Ltd. (Headquarters: Osaka, Japan; President: Koichi Kozuki) (“Create Vaccine”), a joint venture company established by DSP and Japan BCG for the development of new tuberculosis (TB) vaccine businesses.

Create Vaccine is engaged in a tripartite joint development program\* together with National Institute of Biomedical Innovation, Independent Administrative Agency (“NIBIO”) and Aeras, a nonprofit biotech organization (Headquarters: Maryland, USA) for the development of new TB vaccines, incorporating a novel recombinant human parainfluenza Virus type-2 (rhPIV2) vector technology developed by NIBIO. The vaccines would be the world’s first TB vaccines based on a novel rhPIV2 vector technology. They are called mucosal immunity induction vaccines because they target the patient’s mucous membranes to keep bacteria causing TB from making an entry into the lungs. The vaccines are designed to prevent TB in adults, who are most susceptible to developing the active, infectious form of the disease.

The joint investment was made this time to help Create Vaccine finance the costs of development for the preclinical stage. INCJ decided to participate in the joint investment for the purposes of i) assisting the development of innovative new drugs through the open innovation by combining the creative seed offered by NIBIO and the outstanding TB vaccine development expertise of Aeras, ii) fostering entry of Japanese pharmaceutical companies into vaccine business, and iii) contributing to meeting global health needs including not only in Japan but also emerging countries. DSP and Japan BCG as well as INCJ hope that the joint investment will help accelerate successful development of the novel vaccine.

The joint development project of the TB vaccines by NIBIO, Aeras and Create Vaccine has received a funding of 70 million yen in November 2013 from The Global Health Innovative Technology Fund (“GHIT Fund”), a general incorporated partnership. In March 2014 GHIT Fund announced an additional funding of some 565 million yen to the development project. GHIT Fund has the mission to facilitate international partnerships that enable Japanese technology, innovations, and insights to play a more direct role in reducing disparities in health between the rich and the poor of the world.

\* The conclusion of the joint development agreement among NIBIO, Aeras and Create Vaccine was announced by them on January 27, 2014 in a news release.

[Reference Information]

### **About Tuberculosis (TB)**

TB is one of the three major infectious diseases. Each year, more than 8.6 million people become sick with TB and 1.3 million people die of the disease. Although its burden is spread across all age groups, it exacts its greatest toll on individuals during their most productive years, from ages 15 to 44. In Japan every year, there are more than 20,000 incidents of TB and more than 2,000 people die from the disease. The global emergence and spread of multidrug-resistant TB (MDR-TB) and extensively drug-resistant TB (XDR-TB), now found in all countries surveyed worldwide, are confounding efforts to halt the spread of TB and are imposing enormous personal costs and a significant economic burden on national health systems. The cost of treating MDR-TB can be 200 times greater than for drug-susceptible TB.

### **About Innovation Network Corporation of Japan**

INCJ was established in July 2009 as a public-private partnership that provides financial, technological and management support for next-generation businesses. INCJ specifically supports those projects that combine technologies and varied expertise across industries and materialize open innovation. INCJ has the capacity to invest up to ¥2 trillion (approx US\$20 billion).

To date, INCJ has invested approximately ¥750 billion in a total of 65 projects and is currently focused on a broad range of areas from green energy, electronics, IT and biotechnology to infrastructure-related sectors such as water supply. INCJ maintains a hands-on approach to investment, engaging in the business development of cutting-edge core technologies through intellectual property funds, expansion of venture companies and aggressive overseas development through initiatives such as restructuring and mergers of tech businesses and acquisitions of foreign companies.

### **About DSP**

DSP defines its corporate mission as “To broadly contribute to society through value creation based on innovative research and development activities for the betterment of healthcare and fuller lives for people worldwide”. By pouring all efforts into the research and development of new drugs, DSP aim to provide innovative and effective pharmaceutical solutions to people not only in Japan but also around the world in order to realize our corporate mission.

### **About Japan BCG**

Capitalizing on its profound knowledge and technical expertise gained in the course of many years of vaccine production and research, Japan BCG strives to make contribution to the health of people all around the world through stable supply of high-quality products and development of innovative products.

### **About Create Vaccine**

Create Vaccine is a joint venture company created by DSP and Japan BCG on July 31, 2013 for the purposes of developing and marketing novel TB vaccines. As a result of the announced joint investment, the shareholding ratios of DSP, INCJ and Japan BCG in Creative Vaccine are 33.4%, 33.3% and 33.3%, respectively.

### **About the joint development by NIBIO, Aeras and Create Vaccine**

NIBIO, Aeras and Create Vaccine are advancing their collaboration through preclinical stages with a goal to advance to clinical trials for confirmation of safety and immunogenicity. The collaboration milestones include the characterization of new vaccine constructs with a variety of antigens, the conduct of immunology studies to identify the most promising novel vaccines and the establishment of current good manufacturing practices (cGMP). NIBIO is Japan's sole independent administrative agency with a focused mandate of promoting and fostering the creation of innovative pharmaceuticals. Aeras is a nonprofit biotech advancing the development of TB vaccines in collaboration with global partners in Africa, Asia, North America and Europe. In the tripartite collaboration, NIBIO is mainly responsible for research, Aeras for development, and Create Vaccine for development, production and marketing.

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# [Appendix]



## INCJ to make joint investment in Create Vaccine Co., Ltd.

Target: Create Vaccine Co., Ltd.  
Outline: Development of a novel TB vaccine using human parainfluenza virus type-2 vector technology  
Investment: Total 845 million yen (INCJ: 283.05 million yen, DSP: 281.35 million yen, Japan BCG: 280.6 million yen)

