

INCJ to invest in NapaJen Pharma

A Bio-venture aims to develop nucleic-acid drugs using delivery technology platform

Tokyo, February 3, 2014—Innovation Network Corporation of Japan (“INCJ”) announced today its decision to invest in NapaJen Pharma, Inc. (hereafter “NapaJen Pharma”), which aims to develop drugs such as immunosuppressants for transplant patients using unique delivery technology platform of nucleic acids. The investment will provide NapaJen Pharma with a maximum of US\$9 million in funding for early stage drug development.

NapaJen Pharma will also receive investment from a fund managed by Mitsui Global Investment.

In recent years there has been interest in the potential therapeutic benefits of nucleic-acid drugs, which take a genetic-based approach to treating the underlying causes of refractory diseases including cancer and genetic disorders. Research and development in the area is being carried out worldwide.

A major issue in drug development, however, has been the instability of nucleic acids in isolation, which means that they often degrade in the body before the expected therapeutic effect is exhibited. Drug delivery technology has attracted significant attentions as a means to overcome this problem and make use of nucleic-acid function in the body.

NapaJen Pharma has focused on the results achieved by a research group led by Kyushu University and The University of Kita-Kushu as part of a Japan Science and Technology Agency project, which showed that natural polysaccharides held promise as a carrier of nucleic acids. Together with its subsidiary, Napa Jenomics, the company has developed it as a delivery technology platform that to specific cells (such as a dendritic cell) by forming a nucleic acid-polysaccharide complex. Through this technology, it is hoped that nucleic acids can be held stable in the body and their original therapeutic functions can be exhibited. NapaJen Pharma and Napa Jenomics have already developed a number of complexes of RNA interference (RNAi), a nucleic acid drug, and are verifying the pharmaceutical benefits of these products.

NapaJen Pharma is currently pursuing development of immunosuppressant drugs that target the genes involved in the rejection of transplanted tissue, and these drugs have shown a high level of efficacy in animal studies.

The number of cases of transplant therapy in the United States and Japan has increased in recent years and existing immunosuppressive drugs often exhibit serious side effects as the treatment

period lengthens. In the case of delivery technology platform, however, nucleic acid drugs are actively targeted to specific cells (dendritic cell) without degrading in the body, so the risk of side effects is mitigated and a high safety profile can be expected. Traditionally, targeted delivery of nucleic acid drugs has been limited to certain sites in the body, so successful targeted systemic delivery would be a global first that would facilitate the development of safer and more effective drugs.

NapaJen Pharma has until now received funding from private venture capital firm Mitsui Global Investment and INCJ's participation will further accelerate drug development through funding and management support.

Through this investment in NapaJen Pharma, INCJ is aiming to improve patient quality of life and satisfy unmet medical needs through innovative drug-discovery technology, and stimulate Japan's drug-discovery industry by encouraging financing from the private sector.

About NapaJen Pharma, Inc.

Established: December 2004

Business outline: DDS platform for nucleic acid and other materials and development of drugs using DDS technology

Location of headquarters: 533 Airport Blvd., #527, Burlingame, CA, U.S.A

President & CEO: Hironori Ando

About Innovation Network Corporation of Japan (INCJ)

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 ¥700 billion in a total of 56 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.

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[Appendix] INCJ to invest in NapaJen Pharma

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Target: NapaJen Pharma, Inc.
Outline: A Delivery technology platform of nucleic acids or other materials, and drug-development using the delivery platform
Investment: US\$ 900 million (maximum)



- Supports drug discovery/development of academia originated technology
- Anticipates developing nucleic acid drugs that can be administered systemically and address unmet medical needs
- Contributes stimulation of drug-discovery/development venture industry through co-investment with private venture capitals