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Gene Techno Science Co.,Ltd.  
Code: 4584 (TSE Mothers)  
President  
Masanari Kawaminami

## **Joint Agreement with GeneDesign for Nucleic Acid Drug Development**

Gene Techno Science Co.,Ltd. announces that it has entered into an agreement with GeneDesign, Inc. (Head office: Ibaraki City, Osaka; President: Kazuhiko Yuyama) to establish a joint project for the purpose of launching a nucleic acid drug development platform on June 12, 2014. Details are as follows.

### **1. Environment for the development of nucleic acid drugs**

Nucleic acid drugs make possible a drug discovery process using a mechanism of action that is completely different than the mechanism of conventional pharmaceuticals. Side effects of nucleic acid drugs are minimal. As a result, there are growing expectations for nucleic drugs to become the next generation of pharmaceuticals following antibody drugs. Since nucleic acid drugs are easily broken down within the body, they require a drug delivery system capable of transporting these drugs to the targeted area of the body. Creating this system has been a major obstacle to the development of nucleic acid drugs. Currently, research involving the mechanism of action of these drugs and a drug delivery system is under way worldwide. There are hopes that this research will produce a technological breakthrough that will allow creating many seeds for new drugs. MicroRNA, which is a candidate for use as a nucleic acid drug, is attracting attention as a key molecule for the breakdown of iPS cells and for regenerative medicine. Consequently, nucleic acid drugs are expected to be used in a broad spectrum of applications.

### **2. Earnings from the provision of platforms**

This agreement brings together the nucleic acid drug production technology of GeneDesign with the genome array design expertise of Gene Techno Science. Combining this know-how is expected to allow supplying platforms for the development of nucleic acid drugs, which is the reason for establishing this agreement. Gene Techno Science and GeneDesign plan to design and supply nucleic acid drugs that meet the requirements of universities and public-sector research institutes that are studying these drugs. In addition, the two companies will provide support for exit strategies that use pharmaceutical companies. The goal is to use these activities to identify new drug creation seeds in Japan and commercialize these seeds. Gene Techno Science believes this will produce earnings from the design and provision of nucleic acid drugs as well as from the licensing of intellectual property rights to pharmaceutical companies.

### 3. Use for Gene Techno Science R&D themes

Drug delivery systems play an important role in the development of nucleic acid drugs. Gene Techno Science was selected by the Ministry of Economy, Trade and Industry in the fiscal 2013 subsidy program to support the development of basic technologies (manufacturing technologies for next-generation antibody drugs that comply with international standards) for creating next-generation pharmaceuticals for personalized medicine. As part of this project, Gene Techno Science has started working on the development of basic technologies for nucleic acid-antibody conjugates. The objectives are to quickly assemble a development platform for nucleic acid drugs, aggressively utilize this platform as a basic technology along with antibodies, and create new seeds for the development of drugs.

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