

November 21, 2002

AnGes MG, Inc.

**Notice on the Completion of the Pilot Plant  
for Manufacturing HVJ Envelope Vectors**

We are pleased to report that a pilot plant for manufacturing HVJ envelope vectors (hereinafter referred to as, "HVJ-E non-viral vectors") has been completed in our Ikeda Laboratory.

This plant complies with the "Good Manufacturing Practice" (GMP) standards for production and quality control of medical and pharmaceutical products. For the HVJ-E non-viral vectors, production technologies have already been established in relation to gene analysis for studying gene functions, and Ishihara Sangyo Kaisha, Ltd. has released their reagents for research. The completion of our plant enables development of the HVJ-E non-viral vectors as drug delivery systems for medical and pharmaceutical products starting in the next fiscal year. These delivery systems are the technologies for delivering an agent to the affected parts of the body.

The HVJ-E non-viral vectors refer to a technology that uses only the membrane of Hemagglutinating Virus of Japan (HVJ; also known as the Sendai Virus) discovered in Japan during the 1950s, with all the genetic expressions removed, enabling the HVJ-E non-viral vectors to fuse cells with the membrane (cellular fusion), which significantly improves the adoption efficiency and safety of the product.

Existing vectors are mainly categorized into viral and non-viral vectors. Although viral vectors possess good adoption efficiency due to infective properties of (original) viruses, some safety problems remain unresolved. Non-viral vectors with fatty membranes, on the other hand, are safe, but their adoption efficiency is diminished. The HVJ-E non-viral vector is a technology that eliminates the problems of existing vectors, availing them to a wide range of applications, and have the potential of becoming the world's leading vectors.

For medical applications, the HVJ-E non-viral vectors can be used as advanced pharmaceuticals through use of biopolymers including gene-related medicines, nucleic acid and gene related medicines. Furthermore, these vectors can also be used as a drug delivery

system (DDS) to improve absorption of low molecular compounds and other conventional drugs in the body.

While we proceed with the research for the vector applications to genetic therapy and protein related drugs, as well as other advanced pharmaceuticals, our company is planning to develop pharmaceuticals with high lesion delivery efficacy applying the vectors to the anti-tumor agents with severe side effects due to systemic administration. For that purpose, we have joined forces with many domestic and overseas pharmaceutical companies, and we plan to start clinical tests within a few years.

We would like to draw your attention to the fact that development of the HVJ-E non-viral vectors has received the support of the Ministry of Economy, Trade and Industry, as well as the support of the ministry-affiliated New Energy and Industrial Technology Development Organization, and National Institute of Advanced Industrial Science and Technology, an independent administrative body. Furthermore, Professor Yasufumi Kaneda of the Faculty of Medicine at Osaka University has filed an application for basic patents for the vector in major countries around the world, and has transferred the patent rights to our company.