## <u>GenomIdea's Joint Development with Mitsubishi Space Software Bears Fruit</u> -- Development of a New Drug Design System for the Next-generation Nucleic acid <u>Medicine "siRNA" Completed --</u>

AnGes MG hereby announces the development of a highly anticipated new drug design system that holds great promise for the nucleic acid medicine siRNA, a next-generation nucleic acid medicine, by AnGes' subsidiary GenomIdea Inc. via joint development with Mitsubishi Space Software Co., Ltd. (MSS).

MSS and GenomIdea will further enhance the accuracy of this drug design system by using an HVJ envelope vector high-throughput functional analysis system, to get prepared for acceptance of drug design orders for siRNA from pharmaceutical companies starting as early as next fiscal year. GenomIdea also plans to conduct its own research into medicines based on siRNA in the future.

siRNA is a short double-stranded RNA that has the same sequence as part of the target gene (mRNA), and possesses the characteristic of vigorously repressing the action of the gene. A wide range of diseases today are believed to be triggered by overexpressing genes susceptible to certain pathogens. For this reason, the capability of siRNA to vigorously repress the action of a target gene has engendered high hopes in recent years as a next-generation nucleic acid medicine of great promise. However, as the degree of siRNA's activity largely differs according to the sequence to be selected, a major research objective has been to determine which sequence of a target gene to be used in the case of human gene families. So far there has been no convincing method to determine such a sequence, but the drug design system developed by MSS and GenomIdea is capable of solving the problem.

For conventional medicines composed of relatively simple chemical compounds, selecting a new drug substance effectively involves application of the random screening method to narrow down candidates. This technique until now has been the main way in which substances appropriate to medicinal use have been chosen from among samples prepared in volume. However, as it requires samples to be prepared in abundance, random screening is not suitable for the costly production of siRNA. Based on this consideration, GenomIdea

and MSS have cooperated to develop a drug design system that allows selection of a sequence of siRNA that will be able to vigorously repress a disease-causing target gene while also possessing strong specificity and no significant adverse reactions. This jointly developed system does not require production of a large quantity of samples, and is capable of searching a target gene for an siRNA sequence suitable for clinical use.

From this point onward, GenomIdea, using an HVJ envelope vector high-throughput functional analysis system, will be analyzing a large number of siRNA at high speed. At the same time, MSS will exert its efforts to enhance the accuracy of the drug design system further by gathering data such as siRNA sequences, their activity, and the safety-related issues provided by such functional analysis. In the commercialization process, they will be ready to accept drug design orders for siRNA from pharmaceutical companies as early as next fiscal year, and GenomIdea plans to launch its own research program in order to develop medicines from siRNA in the future.

The siRNA drug design system has been developed as part of a 2003 Regional Regeneration Consortium's Research and Development Project led by the Kansai Bureau of Economy, Trade and Industry.

## **Company Profile**

Mitsubishi Space Software Co., Ltd. Headquarters: 2-4-1 Hamamatsucho, Minato-ku, Tokyo President: Michiaki Miyake Establishment: March, 1962 Capital: 500,000,000 yen (as of March, 2004) Payroll: 966 (as of March, 2004) Business Activities: Software manufacture, sales, services, bioinformatics related businesses Major shareholders (Shareholding ratio): Mitsubishi Electric Corporation (86 %)

Genomldea Inc. Headquarters: 4-15-5 Tenma, Kita-ku, Osaka City, Osaka President: Takuma Nakatsuka Establishment: July, 2002 Capital: 90,000,000 yen (as of June, 2004) Payroll: 25 (as of June, 2004) Sales: 101,000,000 yen (for the term ended December, 2003) Business Contents: Development of a new vector technology Major shareholders (Shareholding ratio): AnGes MG, Inc. (78 %)