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DSM and Gene Alliance announce largest industrial genome-sequencing project in Europe

Berlin, Germany, September 5, 2000 – DSM Research (a division of DSM N.V. (Amsterdam: DSM.ASX)) has commissioned the German genomics consortium Gene Alliance to determine the DNA sequence of the fungus *Aspergillus niger*, one of the most important organisms used in enzyme production at DSM.

The DNA sequence of *Aspergillus niger* is estimated to consist of approximately 30 million base pairs, which would make this study what is believed to be the largest industrial genome contract sequencing project in Europe to date. Since DSM expects to be able to use the results of the project to substantially improve several of its biotechnological processes over the next few years, it considers the study to be very important for reinforcing its competitive position in the life sciences field. The DNA sequencing of *Aspergillus niger* is scheduled to be completed in September 2001. The project will be conducted for DSM on a fee for service basis by the Gene Alliance. Financial terms were not disclosed.

The high-throughput sequencing of the *Aspergillus niger* genome will be conducted by the members of the Gene Alliance and coordinated by QIAGEN, and will leverage each of the Gene Alliance's partners' capacities. The project will employ a BAC by BAC sequencing approach using a BAC library constructed at QIAGEN. The bioinformatics aspects of the project such as full annotation and DNA/protein visualization, which are required to establish what genes are present and what their possible functions are, will be carried out by Biomax Informatics, also a Gene Alliance member, using the GeneReliance™ bioinformatics system. The GeneReliance system is based on the Pedant-Pro™ Sequence Analysis software system developed at Biomax. The system identifies all genetic elements within DNA sequences and assigns functional classification of all open reading frames (ORFs) which will give DSM full use of the data.

Professor Joop Roels, director of DSM Research Life Sciences, described the high expectations DSM has for the project. "Genomics makes it possible to analyze the very complex relationships between processes in living cells at a molecular level. The information on the DNA sequence information is essential for this. Genomics makes it much easier to establish how a production process inside a cell can be improved. To DSM, genomics is a completely new way of carrying out research. I expect our scientists to be able to use the results of this study to improve the efficiency of a

number of production processes. The project will enable us to cut costs as a result of lower raw materials usage, waste production and energy consumption, and to make new and better products."

Professor Roels continued: " The Gene Alliance is a strategic partner to DSM as it offers both excellent sequencing and powerful bioinformatics capabilities."

Dr. Eike Griess, project supervisor at QIAGEN for the Gene Alliance added: "As the breadth and size of genomics projects increase, the establishment of this collaboration further demonstrates that the Gene Alliance is providing desirable value-added services through its "one-stop-shopping" array of a complete portfolio of genomic services. The Gene Alliance is designed to allow successful and economical execution and management of large-scale sequencing projects such as this project with DSM."

Dr. Klaus Heumann, of Biomax Informatics, adds "The integration of an optimized and targeted high-quality bioinformatics platform along with a solid sequencing strategy differentiates Gene Alliance as the best partner to successfully meet the demands of the *Aspergillus* project."

DSM is a highly integrated international group of companies that is active worldwide in the field of life science products, performance materials and chemicals. The group has annual sales of EUR 6.3 billion and employs about 21,800 people at more than 200 sites worldwide.

Gene Alliance is a leading European genomics services provider, created to address large-scale genome analysis projects by leveraging its members capacities and strengths. It has one of the highest commercially available sequencing capacities in Europe and offers a complete portfolio of integrated genomic services.
The founding members of the Gene Alliance partnership are AGOWA (Berlin), Biomax Informatics (Munich), GATC (Konstanz), MediGenomix (Munich, a subsidiary of Medigene AG – Frankfurt: MDG) and QIAGEN GmbH (Hilden, a wholly owned subsidiary of QIAGEN N.V. (Nasdaq: QGENF, Frankfurt: QIA).

Certain of the statements contained in this news release may be considered forward-looking statements within the meaning of Section 27A of the U.S. Securities Act of 1933, as amended, and Section 21E of the U.S. Securities Exchange Act of 1934, as amended. To the extent that any of the statements contained herein relating to the services, products and markets and operating results of the Gene Alliance or any of its members are forward-looking, such statements are based on current expectations that involve a number of uncertainties and risks. Such uncertainties and risks include, but are not limited to, those associated with the continued ability of the respective members of the Gene Alliance to work together to successfully operate and manage the alliance and market its and their respective products and services and the continued commercial development of the DNA sequencing and genomics markets. For further information concerning these uncertainties and risks, refer to the discussion in reports that the Gene Alliance and its members have published including reports that QIAGEN N.V has filed with the U.S. Securities and Exchange Commission (SEC).