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**Biomax Informatics AG and Roche Announce  
ProteoExpert Speeds Up Protein Research**

ProteoExpert RTS *E. coli* HY is a new Internet-based information service from Roche Diagnostics. It's designed to assist scientists working in the field of protein research with the Rapid Translation System (RTS), Roche's platform for cell-free protein synthesis. The ProteoExpert was developed in co-operation with **Biomax Informatics AG**, Martinsried, Germany and will reduce costs and add considerable efficiencies to cell-free protein synthesis.

Proteins are responsible for all the biological processes in the body. The relationship between their structure and function is particularly important, for example, in the detection and treatment of diseases. Cell-free protein synthesis starts with a DNA fragment which, together with various working materials such as amino acids, is introduced into the RTS unit. The result of the process is a specific quantity of the desired protein. In order to obtain as large a quantity as possible of the protein, the initial DNA will, in many cases, need to be modified.

This is where ProteoExpert helps speed up the process: The customer visits the [www.proteoexpert.com](http://www.proteoexpert.com) website, where he submits his coding DNA. In return for a fee, ProteoExpert calculates sequence alternatives that will achieve an increase in expression yield without changing the target protein. The customer receives ten suggestions for improved DNA sequences, together with information about the reaction conditions for producing the corresponding DNA molecules. The data transfer from the customer to ProteoExpert and vice-versa is subject to strict security measures since the data is directly forwarded to the ProteoExpert calculation server at **Biomax**.

This procedure saves the researcher both the time and reagents. Moreover, the protein quantities required for further experiments (e.g. investigation of protein structure) are produced more quickly.

The ProteoExpert service has been available worldwide since July, so far with great success. Customers particularly value its practical focus. More than 700

DNA sequences and data from the production of the corresponding proteins were evaluated in its development, and significant increases in yield have been achieved in approximately 90% of cases tested to date.

### **About Roche and the Roche Diagnostics Division**

Headquartered in Basel, Switzerland, Roche is one of the world's leading research-oriented healthcare groups in the fields of pharmaceuticals and diagnostics. Roche's products and services address prevention, diagnosis and treatment of diseases, thus enhancing well-being and quality of life. Roche's Diagnostics Division, the world leader in in-vitro diagnostics with a uniquely broad product portfolio, supplies a wide array of innovative testing products and services to researchers, physicians, patients, hospitals and laboratories world-wide. For further information, please visit our websites [www.roche.com](http://www.roche.com) and [www.roche-diagnostics.com](http://www.roche-diagnostics.com).

### **About Biomax**

Biomax Informatics AG (Martinsried, Germany), a leader in the development of customized bioinformatics solutions, was founded in 1997 as a spin-off of the GSF-MIPS academic research group, now the German Research Center for Environment and Health-Institute for Bioinformatics (GSF-IBI). Founded by Dr. D. Frishman, Dr. K. Heumann and Prof. Dr. H. W. Mewes, Biomax developed the well-known Pedant-Pro™ Sequence Analysis Suite, the HarvESTer™ EST Assembly and Clustering System, and other bioinformatics tools used in metabolic pathway, proteomics, and gene expression analyses. Additional information about Biomax can be found at the company's site on the World Wide Web at [www.biomax.de](http://www.biomax.de).

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