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**BIOMAX INFORMATICS AG  
announces knowledge management and text-mining project  
to understand the development of allergies**

**PLANEGG, Germany** — (1 March 2011) — If you sneeze while reading this, you are not alone. According to the European Federation of Allergy and Airway Diseases Patients Association (EFA), more than 80 million people in Europe suffer from some kind of allergic disease and that number is growing.

Biomax Informatics has joined the quest to determine why allergies have intensified over the years to become the 21st century's global epidemic and announces its participation in the Mechanisms of the Development of Allergy (MeDALL) project, backed by European Union's 7<sup>th</sup> Framework Programme (FP7). MeDALL aims to generate novel knowledge on the underlying causes and mechanisms of allergies from early childhood to young adulthood. The results of the project will help to improve the quality of life of people with allergies through early diagnosis, improved prevention strategies, and new cost-effective treatments for allergic disorders.

In the project, Biomax Informatics will provide the text-mining and knowledge management infrastructure for the MeDALL consortium of 23 institutions from academia and industry with experts in the fields of epidemiology, genetics, immunology, biology, animal models, biochemistry and systems biology. Biomax will use their BioXM™ Knowledge Management Environment to support MeDALL's innovative, integrative research strategy.

"Not only will the BioXM system help the MeDALL researchers manage, integrate and mine the diverse data provided by the entire consortium, it will enable the consortium partners to establish the next level of Systems Medicine research in allergology and develop new, personalized prevention and treatment strategies," says Biomax Project Manager, Dr. Dieter Maier. The BioXM system will handle the project's complex data, which includes experimental data such as DNA expression and methylation, patient data including symptoms and environmental factors from several large birth cohort studies, and text-mining extracted literature data about allergies. The BioXM system will be used to create a knowledge network based on information gathered by cross-sectional and birth cohort studies, including data on more than 42,000 children born between 1992 and 2007 across Europe. In a second phase of the project, 18,000 of them will be re-examined using a common protocol.

The BioXM platform will support the researchers in identifying and validating biomarker profiles ("fingerprints") for allergy disease. Relevant fingerprints will be combined into network biomarker

phenotype “handprints” using a Systems Biology approach and validated in a sufficiently powered sample. Animal studies and in vitro human immunology will reinforce the validation. This information coupled with classical and novel phenotypes will be used to characterize environmental factors for allergy and risk groups. Results will be fitted into new integrative mathematical models to establish suitable biomarkers for early diagnosis, prevention and targets for therapy of allergy-associated diseases such as asthma and atopic dermatitis.

### **About MeDALL**

The Mechanisms of the Development of Allergy (MeDALL) project addresses the underlying causes and mechanisms of asthma and allergic disease as well as prevention and better control of allergies. The consortium aims to elucidate the reasons behind the growing number of allergy cases (including asthma, allergic rhinitis, atopic dermatitis, and food allergy, particularly in children). They will determine whether and how environmental factors influence the development of allergies, and in turn the worldwide allergy epidemic.

The MeDALL consortium encompasses 23 public and private institutions in 14 countries. The consortium includes experts in the fields of epidemiology, genetics, immunology, biology, animal models, biochemistry and systems biology. The project is coordinated by the Institut National de la Santé et de la Recherche Medicale (INSERM), Paris, France and the Centre for Research in Environmental Epidemiology (CREAL), Barcelona, Spain. MeDALL has received funding from the European Union 7<sup>th</sup> Framework Programme (FP7) under grant agreement #261357. The MeDALL project's kick-off meeting was held in Barcelona, Spain on 24-26 January 2011. More information about MeDALL can be found on their website [www.medall-fp7.eu](http://www.medall-fp7.eu).

### **About Biomax**

Biomax Informatics AG (Planegg, Germany), founded in 1997, is a leader in the development of customized bioinformatics solutions. Biomax developed the well-known Pedant-Pro™ Sequence Analysis Suite, the BioRS™ Integration and Retrieval System, the BioXM™ Knowledge Management Environment and other computational solutions for better decision making and knowledge management in the life science industry. In 2007 Biomax acquired the Viscosity® data mining business from eudaptics gmbh to complement the BioXM system with tools to identify and validate diagnostic biomarkers. More information about Biomax can be found at the company's website [www.biomax.com](http://www.biomax.com).

### **About the BioXM™ Knowledge Management Environment**

The BioXM Knowledge Management Environment is a project-centered, distributed software platform that provides a central inventory of information and knowledge. Users create, manage and visualize scientific models as an extendible network of interrelated concepts. The BioXM platform facilitates communication and collaboration across research & development departments and integrates seamlessly into existing IT environments. More information about the BioXM platform can be found at [www.biomax.com/bioxm](http://www.biomax.com/bioxm).

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