

Kinaxo Enters into an Agreement with Boehringer Ingelheim

Martinsried, Germany, October 13, 2008. Kinaxo Biotechnologies GmbH announced today that it has entered into a two-year collaboration with Boehringer Ingelheim. Under the agreement Kinaxo will apply its new platform technologies to studies on drug mode of action and target identification. Financial details of the agreement were not disclosed.

Building on its existing quantitative Cellular Target Profiling™ capabilities, Kinaxo will now employ high end mass spectrometry-based technologies to quantitatively analyze post-translational modifications of proteins. This new service will make it possible to determine the effects of compounds on proteome-wide signal transduction pathways, providing a detailed and comprehensive picture of their *in vivo* mode of action in cultured cells or animal tissue. Such analyses will also facilitate identifying new biomarkers and drug targets.

In the initial phase of this collaboration Kinaxo will undertake two studies on behalf of Boehringer Ingelheim. The first will be a cell line analysis project to measure the effects of an enzyme inhibitor on the acetylation status of the cellular proteome. In the second study, Kinaxo will use its new phosphoproteomics platform to determine differences in the signal transduction pathway activation status of a specific neuronal tissue when comparing wild type with a genetically modified mouse strain modelling a defined disease state. The aim of this study is to identify new drug targets.

Kinaxo's addition of post-translational modification profiling to the current Cellular Target Profiling™ service helps generate a comprehensive picture of a compound's mode of action. Cellular signal transmission in eukaryotic cells is – in part – regulated by the reversible phosphorylation of proteins. Most protein kinases are positively or negatively regulated through phosphorylation by other kinases. Therefore, differential analysis of the complete cellular "phosphoproteome" upon kinase inhibitor treatment provides a highly informative and direct insight into the compound's mode of action.

Kinaxo's new services elegantly combine a state of the art mass spectrometry platform with Stable Isotope Labelling by Amino acids in Cell culture (SILAC) technology, as developed in the laboratory of Professor Matthias Mann at the Max-Planck Institute of Biochemistry, Martinsried, Germany. With the creation of a 'SILAC mouse' Matthias Mann and colleagues recently extended the technology to analyzing tissue samples from animal models (Krüger et al., Cell 134 (2008), 353–364).

“The SILAC platform is a powerful tool that enables one to quantitatively compare post-translational modifications across multiple biological samples. Initially applied to cell lines we have developed the ‘SILAC mouse’ which significantly extends the capability, since we can now also analyze and compare any mouse tissue,” said Professor Mann.

Dr. Andreas Jenne, Kinaxo’s CEO added: “We are delighted to apply these recent technology innovations in our collaboration with Boehringer Ingelheim. In offering access to this state-of-the-art platform we will enhance and complement our existing services. Among other applications, our customers will now be able to determine the quantitative effect of their compounds on cellular signalling pathways, as well as identify and quantify compound target interactions, all in a proteome-wide fashion. This will provide critical cell-based and *in vivo* information on a compound’s mechanism of action to support drug programme decision making.”

About KINAXO

Kinaxo Biotechnologies is a privately-held biotechnology company based in Munich/Martinsried, Germany. As a spin-off of the Max Planck Institute of Biochemistry in Martinsried, Kinaxo offers extensive experience in cellular target profiling, and has several ongoing pharmaceutical and biotechnology company collaborations, including with UCB Pharma, Johnson & Johnson and Takeda. Kinaxo is financed by European investors BioM, High-Tech Gründerfonds, KfW, the Max Planck Society, and Mountain Partners.

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