Kinaxo contributes its quantitative phosphoproteomics platform to a drug efficiency study

Martinsried, Germany, February 24, 2009. Kinaxo Biotechnologies GmbH announced today that it was awarded a grant by the Bavarian Research Foundation (Bayerische Forschungsstiftung) to expand applications for its quantitative phosphoproteomics platform to contribute to a drug efficacy study.

Quantitative phosphoproteomics enables analysis of the phosphoproteome, which includes all phosphorylation events occurring in a specific cell line or tissue. Since the majority of targeted small molecules used as anticancer drugs influence the cell's signal transduction pathways, quantification of phosphorylation patterns in relation to drug administration delivers insights into a compound's cellular mode of action. Moreover, non-responsiveness to a multitude of compounds is a fundamental problem in cancer treatment. Here, quantitative phosphoproteomics is a powerful method to unveil the mechanisms of both cellular resistance and a drug's effect. Furthermore, it can be a valuable tool to discover predictive biomarkers that foretell the therapeutic outcome in a patient which in turn allows a targeted therapy approach.

To develop new methods for individualized tumor therapy in pancreatic cancer, Kinaxo Biotechnologies GmbH has now joined an interdisciplinary collaboration with Priaxon AG, Genomatix Software GmbH, the Technical University Munich and the University Hospital "Rechts der Isar" to perform a large-scale drug efficiency study.

Despite the fact that several small molecules show significant promise for the treatment of pancreatic cancer, so far no considerable breakthroughs have been achieved. The disease shows a mortality rate of 95%, with crucial tumor-relevant processes being very poorly understood and only a vanishing number of patients responding to standard therapies. Therefore, the aim of the collaboration is to establish tools for identifying tumor-relevant signal transduction pathways and therapeutic targets. Kinaxo will use its quantitative phosphoproteomics approach to evaluate the efficacy of established and new compounds for pancreatic cancer treatment and to try to identify predictive biomarkers that facilitate the design and monitoring of individualized therapeutic strategies.

About KINAXO

Kinaxo Biotechnologies GmbH is a privately-held biotechnology company based in Munich/ Martinsried, Germany. As a spin-off of the Max Planck Institute of Biochemistry in Martinsried, we closely cooperate with several of the Institute's most outstanding scientists in the field of chemical proteomics and quantitative mass spectrometry, namely Dr. Henrik Daub, Dr. Jesper Olsen and Dr. Jürgen Cox (for literature on their recent work see Daub H *et al*., 2008, Molecular Cell, 31(3), 438-448, Olsen JV *et al.*, Cell, 2006, 127(3), 635-648, Cox J *et al*., 2008, Nature Biotechnology 26, 1367 - 1372).

KINAXO's Cellular Target Profiling™ Service delivers direct insights into a small molecule's quantitative binding properties across the proteome of a given cell line or tissue sample. This interaction profile provides invaluable guidance for lead compound selection, for clinical trials, drug repositioning, target deconvolution, and off-target toxicity investigations.

Kinaxo has several ongoing pharmaceutical and biotechnology company collaborations, including with Boehringer Ingelheim, Johnson & Johnson and Takeda, and is financed by European investors BioM, High-Tech Gründerfonds, KfW, the Max Planck Society, and Mountain Partners.

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