KINAXO Biotechnologies and Bayer Vital GmbH Collaborate in Phosphoproteomics Biomarker Identification

Martinsried, Leverkusen, Germany, October 15, 2009. KINAXO Biotechnologies GmbH and Bayer Vital GmbH announced today that they will enter into collaboration. KINAXO will apply its quantitative phosphoproteomics technology PhosphoScout® for the identification of novel biomarkers in a clinical trial conducted by Bayer Vital.

KINAXO's phosphoproteomics platform allows annotation and quantification of regulated phosphorylation sites. Since the majority of targeted compounds used as anti-cancer drugs influence cellular signal transduction pathways, analysis of phosphorylation patterns in relation to drug administration reveals a compound's molecular mode of action. Characteristic phosphorylation sites predicting response to treatment, resistance mechanism or synergistic effects can hereby be identified as biomarkers which allow for personalized treatment plans.

Accompanying a clinical trial for the multi-kinase inhibitor Nexavar® in Acute Myeloid Leukemia (AML), KINAXO will apply its phosphoproteomics technology to reveal the drug's influence on cellular phosphorylation patterns and to search for novel predictive biomarkers. Nexavar® is already approved for the treatment of hepatocellular (HCC) and renal cell carcinoma (RCC) and shows promising effects in several other indications, amongst them AML, the most common type of leukemia in adults. Despite considerable efforts over the last decades, therapeutic outcome in AML therapy has improved only modestly and remains dismal, with a high number of patients being non-responsive to standard treatment or recurrent. Application of KINAXO's phosphoproteomics technology could thus turn out to be a valuable tool to discover predictive biomarkers that foretell therapeutic outcome in patients. Furthermore, quantitative phosphoproteomics will be applied to investigate the molecular efficiency of potential combination therapies in which Nexavar® will be administered together with other targeted drugs to effectively fight cancer. In turn, individualized therapeutic strategies could then improve overall treatment outcome for malignant diseases, such as AML.

"New treatment options, such as Nexavar®, are responsible for the progress which has been achieved in recent years in the fight against cancer. Yet we still have a long way to go until a truly personalized medicine, based on validated biomarkers, will become a reality. That is the reason why we need to further investigate new diagnostic and treatment approaches. The co-operation between the business unit oncology at Bayer Vital in Leverkusen and KINAXO Biotechnologies in Martinsried with Germany as the prime research site gives us a unique chance to substantially contribute to the improvement of cancer therapies. Both partners aim at investigating innovative technologies (such as phosphoproteomics) and targeted therapies (such as kinase inhibitors) which - in conjunction - should allow more effective cancer treatments and, thus, provide more hope to cancer patients", says Dr. Erich Enghofer, Head of the Business Unit Oncology.

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 on Martinsried, we closely cooperate with several of the Institute's most outstanding scientists in the field of chemical proteomics and quantitative mass spectrometry. KINAXO's technology portfolio delivers direct insights into a compound's cellular interactions and its mode of action and is routinely applied to decrease drug development times and improve therapeutic strategies. KINAXO has several ongoing collaborations with major pharmaceutical companies.

About Nexavar®

Nexavar®, an oral anti-cancer drug, is currently approved in more than 70 countries for the treatment of liver cancer and in more than 80 countries for the treatment of patients with advanced kidney cancer. In Europe, Nexavar® is approved for the treatment of hepatocellular carcinoma and for the treatment of patients with advanced renal cell carcinoma (RCC) who have failed prior interferon-alpha or interleukin-2 based therapy or are considered unsuitable for such therapy. Nexavar® targets both the tumor cell and tumor vasculature. In preclinical studies, Nexavar® has been shown to target members of several classes of kinases known to be involved in both cell proliferation (growth) and angiogenesis (blood supply) – two important processes that enable cancer growth. These kinases included Raf, VEGFR-1, VEGFR-2, VEGFR-3, PDGFR-B, KIT, FLT-3 and RET. Nexavar® is currently being evaluated as a single agent or combination treatment in a wide range of cancers, including lung, ovarian and colorectal cancer and as an adjuvant therapy for liver and kidney cancer.

About Onyx Pharmaceuticals, Inc.

Onyx Pharmaceuticals, Inc. is a biopharmaceutical company committed to improving the lives of people with cancer. The company, in collaboration with Bayer HealthCare Pharmaceuticals, Inc., is developing and marketing Nexavar® (Sorafenib) tablets, a small molecule drug. For more information about Onyx, visit the company's website at www.onyx-pharm.com.

About Bayer Schering Pharma

Bayer Schering Pharma is a worldwide leading specialty pharmaceutical company. Its research and business activities are focused on the following areas: Diagnostic Imaging, General Medicine, Specialty Medicine and Women's Healthcare. With innovative products, Bayer Schering Pharma aims for leading positions in specialized markets worldwide. Using new ideas, Bayer Schering Pharma aims to make a contribution to medical progress and strives to improve the quality of life. Find more information at www.bayerscheringpharma.de.

Contact: Dr. Jutta Fritz, MBA, Head of Technology and Business Development,
KINAXO Biotechnologies GmbH, Email: info@kinaxo.de, Phone +49 89 4613363-22