

KINAXO's Cellular Target Profiling® reveals mTOR as a new target of Celebrex®

Martinsried, Germany, April 29, 2009. Kinaxo Biotechnologies GmbH has successfully applied its Cellular Target Profiling® technology to identify the protein kinase mTOR as a new cellular target of celecoxib (Celebrex®, Pfizer). Celecoxib is a non-steroidal, anti-inflammatory Cox-2 inhibitor approved for the treatment of osteoarthritis, rheumatoid arthritis and acute pain. In addition, celecoxib's anti-proliferative effect has earned it a place in numerous clinical trials against several malignancies.

The discovery that celecoxib targets mTOR contributes to a better understanding of the drug's mode of action and efficacy in cancer patients. mTOR (mammalian target of rapamycin) acts as a central regulator of cell proliferation, cell survival, angiogenesis and cell metabolism. Moreover, mTOR is a key intracellular convergence point for a number of signaling pathways that are abnormally activated in many types of cancer.

As traditional drug development approaches become more and more expensive, drug repositioning has been widely recognized as an opportunity to expand a drug's therapeutical applications. Here, Cellular Target Profiling® provides a powerful approach to revealing new targets that indicate additional or alternative medical uses for clinically validated or approved drugs. Further information on celecoxib reprofiling ([AN3](#)) and similar studies with other small molecules (e.g. profiling of the natural product geldanamycin, [AN2](#)) can be downloaded from our website at www.kinaxo.com.

About KINAXO

Kinaxo Biotechnologies GmbH is a privately-held biotechnology company based in Munich/Martinsried, Germany. We offer advanced chemical proteomics and phosphoproteomics services to support lead compound selection, target deconvolution, drug reprofiling, and off-target toxicity assessment. Kinaxo has several ongoing collaborations, including with Boehringer Ingelheim, Johnson & Johnson and Takeda.

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