NEW RESEARCH COLLABORATION AGREEMENT (RCA) BETWEEN THE FDA-CDER (CENTER FOR DRUG EVALUATION AND RESEARCH) AND CHEMOTARGETS

The collaboration aims to enhance CDER's safety assessments of human pharmaceuticals, supporting the FDA's mission of protecting public health.

Barcelona, January 15, 2018

Washington D.C., USA: The Food and Drug Administration's Center for Drug Evaluation and Research (FDA/CDER) and Chemotargets will work together under a 5-year Research Collaboration Agreement (RCA).

The primary objective of the research agreement will be to assess the utility and performance of the Chemotargets CLARITY® intelligence & discovery platform to predict on-target and off-target activities using known pharmacology and safety data from experimental studies of small molecular entities. Evaluating *in silico* models for broad pharmacological profiling is of interest to CDER to predict potential adverse events of drugs in development. Additionally, insight into a chemical's molecular target profile can help predict abuse and addiction potential, which may reduce risks associated with exposure to these substances.

The collaboration will involve the use of the Chemotargets CLARITY® platform to evaluate hypotheses on the toxicological endpoints that are used by CDER to evaluate drug safety. The program identifies the probable molecular targets and mode of action of small molecules, and their predicted metabolites by simultaneously and rapidly screening in a single predictive model more than 2,000 mechanisms of action associated with therapeutic activity and safety liabilities, including hundreds of safety-related mechanisms annotated with preclinical toxicity and clinical adverse effects. In this respect, Chemotargets CLARITY® enables predictive compound safety based on careful treatment of FAERS data and the use of some mathematical descriptors to highlight drug safety signals from background noise. CDER will have access to a Chemotargets CLARITY® version based on an expertly-curated training set derived from internal curation efforts and selected patent data from the GOSTAR database produced by Excelra to ensure a comprehensive coverage of the chemical space. Chemical structure drawing capabilities are available and supported via the Chemaxon Marvin JS.

About FDA CDER

FDA/CDER performs an essential public health task by making sure that safe and effective drugs are available to improve the health of people in the United States. As part of the FDA, CDER regulates over-the-counter and prescription drugs, including biological therapeutics and generic drugs. FDA/CDER's mission is to protect and promote public health by helping to ensure that human drugs are safe and effective, meet established quality standards, and are available to patients.

About Chemotargets

Founded on March 2006 as a spin-off company from Dr. Mestres' Systems Pharmacology lab under the auspices of the IMIM Hospital del Mar Medical Research Institute. Chemotargets offers cutting-edge validated computational methodologies with top-market predictive performance. The innovation strategy is driven by access to state-of-the-art research performed at Dr. Mestres Lab @ IMIM, a leading academic center of excellence based in Barcelona.

Dr. Mestres is the author of more than 150 peer reviewed publications. Chemotargets is currently recognized as a global leader in the provision of predictive analytics solutions to pharmaceutical and biotechnology companies and research institutions. Chemotargets' goal is to help the biopharma industry fast-forward the process of bringing new medicines to market, speeding up drug discovery and development programs, and making them more cost-efficient.

The recent strategic investment in Chemotargets by the Prous Institute for Biomedical Research will allow to accelerate product development and acquire new capabilities to support the company's vision.

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