MediChem and Neurocrine Biosciences Sign Proteomics Agreement On GPCR Drug Target for Depression, Anxiety

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CHICAGO and SAN DIEGO, June 26 /PRNewswire/ -- MediChem Life Sciences (Nasdaq: MCLS), a Chicago-based drug discovery technology and services company, and Neurocrine Biosciences (Nasdaq: NBIX), a San Diego-based biopharmaceutical discovery and development company, announced today that they have entered into a two-year collaborative agreement in proteomics for new drug development.

Under the terms of this renewable agreement, MediChem will crystallize and determine high-resolution 3D structures of specific G-protein coupled receptors (GPCRs), known as CRF-1 receptors. MediChem will attempt to crystallize the receptors alone and in complex with ligands provided by Neurocrine. Preliminary studies have shown that Neurocrine's proprietary CRF-1 receptor antagonists may be effective in depression, anxiety and irritable bowel syndrome (IBS).

"This powerful, new collaboration with Neurocrine shows both the potential and direct applicability of structural proteomics, and the exciting things we are doing with these technologies at MediChem," said Michael T. Flavin, Ph.D., MediChem's president and CEO. "We are working with clients to develop important new drugs that fight diseases affecting millions of people worldwide in a more timely fashion."

"Neurocrine is a leader in the CRF area and already has a clinical candidate and many advanced leads being studied as potential new treatments for depression, anxiety, and IBS," said John Saunders, Neurocrine's Vice President, Research (Chemistry). "We are excited to begin collaborative efforts with MediChem to advance our understanding of the structure of the CRF receptor and hence of second generation antagonists."

The collaboration will start from clones and ligands provided by Neurocrine. MediChem's Emerald BioStructures division will provide its EmeraldEngine(TM) structural proteomics platform of technologies and services, including: protein production, purification and crystallization, as well as X-ray diffraction data collection, crystallographic computations, and three-dimensional model building and refinement.

In consideration for work outlined in the agreement, MediChem will receive access fees, FTE funding, payments for completion of specified milestone events, and rights to technology, data and improvements surrounding its GPCR / high-throughput structural proteomics platform.

"GPCRs are the most important and potentially the most bountiful source of new drug targets," Flavin said. "Membrane proteins are the 'Holy Grail' of structural biology. They represent a true challenge because they are very difficult to crystallize. MediChem, however, has the technology and expertise to accomplish this goal."

GPCRs

GPCRs are one of the largest families of proteins encoded by human DNA, and are implicated in a number of diseases, including Parkinson's, Alzheimer's, asthma, myocardial ischaemia, hypertension, and cognitive impairment.

It is estimated that there are more than 1,000 GPCRs with potential human therapeutic value, yet only a relative few are currently being used as drug targets. Even so, more than 30 percent of drugs currently on the market act against this class of receptor. Drugs that target GPCRs account for more than $20 billion in annual sales.

GPCRs are membrane bound proteins, which are on the surface of cells making them the most accessible proteins for drug interaction. Using structural information derived through proteomics technologies such as MediChem's, scientists are able to visualize the drug compounds that will be the most effective against the target protein and have the least side effects -- a process known as structure-based drug design.

Craig Behnke, Ph.D., joined MediChem as a Research Scientist in Crystallography in December 2000. Behnke was part of the team that determined the crystal structure for rhodopsin, the first GPCR to be solved. The results were published as the cover story of the journal Science, on August 4, 2000.

X-ray Crystallography

MediChem has a proprietary user agreement with Argonne National Laboratory's Advanced Photon Source (APS) -- one of the world's most powerful X-ray beams. The agreement gives MediChem scientists access to the APS to collect proprietary X-ray diffraction data for its clients' projects.

This process reduces the time needed to determine a protein's three-dimensional structure and thus accelerates the drug candidate identification process.

MediChem scientists translate the X-ray diffraction patterns into a high resolution rendering of the three-dimensional structure of its clients' target proteins. Determining the structure of a protein, once crystallized, used to take months or years; it may now take only a fraction of this time using MediChem's resources. Solving a protein's structure improves scientists' ability to optimize small molecule drugs that are directed toward the specific target, with the goal of developing safer and more effective drugs to treat disease.

MediChem Life Sciences (www.medichem.com) is a drug discovery technology and services company that offers a broad range of integrated chemistry R&D capabilities to pharmaceutical and biotechnology companies. A leader in medicinal chemistry research since its inception in 1987, MediChem has extended its technologies and services through proteomics, biocatalysis, combinatorial chemistry and chemical process development. The company's technologies and services are designed to enable its clients to reduce overall development time and costs, and to advance a greater number of discovery and development opportunities through to the marketplace.

Neurocrine Biosciences (www.neurocrine.com) is a biopharmaceutical company focused on the discovery and development of novel therapeutics for

neuropsychiatric, neuroinflammatory and neurodegenerative diseases and disorders. The company's neuroscience, endocrine and immunology disciplines provide a unique biological understanding of the molecular interaction between central nervous, immune and endocrine systems for the development of therapeutic interventions for anxiety, depression, multiple sclerosis, insomnia, brain cancer, obesity and diabetes.

Except for any historical information presented herein, this release contains forward-looking statements regarding MediChem's future activities within the meaning of the Private Securities Litigation Reform Act of 1995 and involve a high degree of risk and uncertainty. These forward-looking statements involve material risks and uncertainties. Many possible factors could affect future results and performance of MediChem's services and technologies, such that actual results and performance may differ materially. If MediChem's services and technologies fail to perform as expected or if there is lower demand for these than expected, MediChem's financial condition and operating results may be materially and adversely affected. MediChem's financial condition and operating results may also be materially and adversely affected by a number of other factors, including, but not limited to, adverse changes in competitive and economic conditions, or difficulties and adverse actions by third parties and licensors, as well as other risks identified in MediChem's registration statement on Form S-1 filed with the Securities and Exchange Commission.

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