Pfizer Logo

Domain Therapeutics And Pfizer Inc. Enter Into Collaboration Agreement On Biosensall™

Tuesday, April 25, 2017 - 08:00am

Proprietary technology will be used to profile signaling of mutant GPCRs to improve and accelerate validation of novel GPCR drug targets

Domain Therapeutics, a France- and Quebec-based biopharmaceutical company specializing in the research and development of new drug candidates that target G protein-coupled receptors (GPCRs), today announces a collaboration agreement with Pfizer Inc. (Pfizer; NYSE:PFE) aimed at assessing the impact of mutations on different signaling pathways engaged by GPCRs. Pfizer has an interest in GPCRs with potential therapeutic relevance; Domain Therapeutics will use its proprietary bioSensAll™ technology to define signaling signatures for each wild-type and mutant receptor.

This collaboration aims to validate potential targets across a range of therapeutic indications by probing the structure-function relationships of various amino acid substitutions in each GPCR. Pfizer will use the results of specific mutations on intracellular signaling to guide further investigations in disease-specific models.

“We are very pleased to have signed this collaboration with Pfizer for the profiling of mutant GPCRs using the bioSensAll™ platform. It is yet another example of the wide applications of the technology, from target validation through to drug discovery and development,” said Pascal Neuville, chief executive officer of Domain Therapeutics. “By building a better understanding of the signaling profile needed for efficacy, bioSensAll™ may reduce the attrition rate of early-stage drug development.”

Domain Therapeutics NA Inc, the Canadian affiliate of Domain Therapeutics, will use bioSensAll™ to characterize the basal activities and signaling profile of known ligands of wild-type receptors. It will then compare these profiles with those of mutant GPCRs. These differential signaling signatures will be used to inform the target validation for different therapeutic indications.

The bioSensAll™ technology allows for easier understanding of signaling pathways activated by each candidate molecule, predicting its pharmacological profile. This approach makes it possible to choose at an early stage of drug development those molecule(s) that have the required activity but do not present side effects or induce tolerance to treatment.

About G protein-coupled receptors and biosensor technology

G protein-coupled receptors (GPCRs) belong to the family of membrane receptors and constitute one of the main classes of therapeutic targets for many indications. The binding of a hormone or a specific ligand to a receptor’s binding site activates one or several pathways for intracellular signaling. This enables the cell to provide an adapted response to the change in its environment. The many drugs that target GPCRs represent about 40% of all treatments on the market, but only address 15% of GPCRs.

The bioSensAll™ platform was originally developed through a pharma and academic consortium in the Quebec region (CQDM). A new and more powerful generation of the platform was recently developed by a team of researchers from the University of Montreal's Institute for Research in Immunology and Cancer (IRIC), led by Pr. Michel Bouvier, and from McGill University, led by Pr. Stéphane Laporte. Domain Therapeutics retains the exclusive commercialization of the technology.

About Domain Therapeutics

Domain Therapeutics is a biopharmaceutical company based in Strasbourg, France, dedicated to the discovery and early development of small molecules targeting GPCRs, one of the most important classes of drug targets. Domain Therapeutics identifies and develops new drug candidates, allosteric modulators and biased ligands through its innovative approach and distinctive technologies. The company provides access to its technologies through licenses, research and collaborative agreements and develops its own pipeline for major indications in central nervous system and metabolic disorders. www.domaintherapeutics.com

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