ACADIA Expands Pain Portfolio to Include New GPCR Targets

December 10, 2002

Discovery of First Small Molecule Agonists for NPFF and MrG Receptors

SAN DIEGO, CA, December 10, 2002 - ACADIA Pharmaceuticals announced today the discovery of the first small molecule chemistries that activate two important G-protein coupled receptor (GPCR) targets, the NPFF and the MrG receptors. Small molecule drugs acting on these recently discovered targets represent a potential breakthrough in the treatment of pain. ACADIA's novel lead chemistries broaden the Company's therapeutic pain portfolio, which also includes ACP-102, a GPCR agonist that is scheduled to enter clinical development shortly for the treatment of neuropathic pain in cancer patients, and preclinical compounds that target a specific subtype of the muscarinic receptors.

NPFF and MrG receptors are members of the family of gene products referred to as GPCRs. This family represents the targets of a diversity of blockbuster drugs and genomic efforts have shown the existence of more than 400 pharmaceutically relevant GPCRs. Most of these GPCRs have no known hormones or chemistries that activate them, and are referred to as "orphan" receptors. NPFF receptors are prominently expressed in the spinal cord where they mediate the analgesic responses of the peptide NPFF. Recently, NPFF was found to activate one of the orphan receptors present in the spinal cord. The MrG receptors are orphan GPCRs that are exclusively expressed by the neurons in the dorsal root ganglia that transmit pain signals to the central nervous system.

"To our knowledge, we have discovered the first small molecule chemistries that activate these targets," said Mark R. Brann, Ph.D., ACADIA's President and Chief Scientific Officer. "The chemistries are potent, selective and drug-like. In the case of the MrGs we have a range of chemistries that differentiate among the subtypes. It is very exciting to launch drug discovery programs in completely new areas where the biology is so compelling." These chemistries were initially found through ACADIA's chemical-genomics approach, where ACADIA is systematically screening members of the GPCR gene family in the search for novel chemistries. To date the approach has been applied to more than 100 GPCRs, and novel chemistries have been identified for more than 60 of these targets.

"These targets and chemistries expand our drug discovery efforts in pain therapeutics," said Robert E. Davis, Ph.D., ACADIA's Executive Vice President of Drug Discovery and Development. "We have two other pain programs: ACP-102 that also targets a GPCR and our advanced preclinical program that exploits muscarinic receptors. We have the necessary preclinical models and development capabilities to rapidly push these new opportunities forward."

ACADIA Pharmaceuticals is a drug discovery and development company that efficiently discovers small molecule drug candidates using its proprietary chemical-genomics platform. ACADIA has successfully applied its platform to generate a broad discovery pipeline that includes advanced programs directed at major diseases, including Parkinson's disease, psychosis, chronic pain, and glaucoma. ACADIA's corporate headquarters as well as its genomics and biological research facilities are located in San Diego, California and its chemistry research facilities are located in Copenhagen, Denmark.

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