Nektar Announces Two Preclinical Data Presentations at Society for Neuroscience 40th Annual Meeting: Neuroscience 2010

NKTR-181 Shows Reduced Abuse Potential and CNS Side Effects in Preclinical Models
New Preclinical Studies Demonstrate that Nektar Polymer Conjugate Technology Can Modulate Brain Uptake Rate of Small Molecules into the CNS

SAN CARLOS, Calif., Nov. 13, 2010 /PRNewswire-FirstCall/ -- Nektar Therapeutics (Nasdaq: NKTR) today presented two poster presentations during the Blood-Brain Barrier Session at the Society for Neuroscience 40th Annual Meeting in San Diego, CA. New data from preclinical models of abuse and pain demonstrated that NKTR-181 significantly lowers abuse potential and reduces CNS-related side effects when compared with existing opioid therapies. In addition, new preclinical data was presented from a series of brain uptake rate studies showing that Nektar's polymer conjugate technology can control the entry rate of small molecules into the CNS.

"The preclinical data presented today for NKTR-181 reinforce the potential of this important new analgesic molecule to provide pain relief without the concurrent abuse potential and serious side effects associated with existing opioids," said Stephen K. Doberstein, Ph.D., Senior Vice President and Chief Scientific Officer of Nektar Therapeutics. "Our scientists also presented a number of key studies showcasing the potential of our blood-brain barrier platform to create novel drug candidates, including tricyclic antidepressants and antihistamines, with targeted action within the body."

NKTR-181 was uniquely designed to cross the blood-brain barrier at a substantially slower rate than other opioid therapies. With a reduced rate of entry into the CNS, NKTR-181 has the potential to eliminate not only the euphoria that underlies opioid abuse liability and dependence but also the serious CNS-related side effects of respiratory depression and sedation. The unique molecular design of the polymer drug conjugate also is designed to prevent conversion of NKTR-181 by the user into a rapid-acting abusable form of an opioid. NKTR-181 is currently in IND-enabling studies and Nektar plans to begin Phase 1 clinical studies in the first part of 2011.

Neuroscience 2010 Presentations

The two presentations made today at the Neuroscience 2010 meeting can be found on Nektar's website at http://www.nektar.com/product_pipeline/cns_pain_nktr-181.html:

- Fishburn et. al., "*NKTR-181: A novel opioid analgesic with slowed CNS entry shows reduced abuse liability and CNS side effects*"
- H. Gursahani, et. al., "*Controlling the rate of entry to the CNS by polymer conjugation*"

About Opioids and Pain Management

Pain is the most common symptom for which patients seek medical attention.(1) According to the American Pain Society, the prevalence of chronic pain in the United States is estimated to be 35.5 percent or 105 million people. Chronic pain costs more than $100 billion per year in direct health-care expenditures and lost work time. Opioids are considered to be the most effective therapeutic option for pain and have over $10 billion a year in sales in the U.S. alone.(2),(3) However, opioids cause significant problems for physicians and patients because of their serious side effects such as respiratory depression and sedation, as well as the risks they pose for addiction, abuse, misuse, and diversion. The U.S. Food and Drug Administration has cited prescription opioid analgesics as being at the center of a major public health crisis of addiction, misuse, abuse, overdose and death.(4) A 2010 recent report from the Center for Disease Control and Prevention (CDC) notes that emergency room visits tied to the abuse of prescription painkillers is at an all-time high, having increased 111 percent over a five-year period.(5)

About Nektar

Nektar Therapeutics is a biopharmaceutical company developing novel therapeutics based on its PEGylation and advanced polymer conjugation technology platforms. Nektar has a robust R&D pipeline of potentially high-value therapeutics in oncology, pain and other areas. In the area of pain, Nektar has an exclusive worldwide license agreement with AstraZeneca for Nektar's oral NKTR-118 development program to treat opioid-induced constipation and its NKTR-119 development program for the

treatment of pain without constipation side effects. The company has additional pain compounds in preclinical studies. In oncology, NKTR-102, a novel topoisomerase I-inhibitor, is being evaluated in Phase 2 clinical studies for the treatment of ovarian, breast and colorectal cancers. NKTR-105, a novel anti-mitotic agent, is in a Phase 1 clinical study in cancer patients with refractory solid tumors.

Nektar's technology has enabled nine approved products in the U.S. or Europe through partnerships with leading biopharmaceutical companies, including UCB's Cimzia® for Crohn's disease and rheumatoid arthritis, Roche's PEGASYS® for hepatitis C and Amgen's Neulasta® for neutropenia.

Nektar is headquartered in San Carlos, California, with additional R&D operations in Huntsville, Alabama and Hyderabad, India. Further information about the company and its drug development programs and capabilities may be found online at http://www.nektar.com.

This press release contains forward-looking statements that reflect Nektar's current views as to the potential of NKTR-181 to effectively treat pain while addressing the abuse liability and serious side effects associated with traditional opioid therapies, the timing of the start of Phase 1 clinical studies for NKTR-181, the potential of Nektar's polymer conjugate technology platform, and the potential for certain of Nektar's other drug candidates. These forward-looking statements involve substantial risks and uncertainties including but not limited to one or more of the following: (i) the preclinical data for NKTR-181 described in this press release and presented at the Neuroscience 2010 Conference may not be predictive of future success in clinical trials; (ii) the commencement of a Phase 1 clinical study for NKTR-181 could be delayed due to regulatory factors, the need to successfully complete certain toxicology studies, drug manufacturing challenges, or other important factors that can impact clinical development efforts; (iii) scientific discovery of new medical breakthroughs is an inherently uncertain process and the future success of the application of Nektar's technology platform to potential new drug candidates such as NKTR-181 is therefore very uncertain and unpredictable and one or more research and development programs could unexpectedly fail; (iv) Nektar's patent applications for its proprietary or partner drug candidates may not issue, patents that have issued may not be enforceable, or additional intellectual property licenses from third parties may be required; and (v) the outcome of any existing or future intellectual property or other litigation related to Nektar's proprietary drug candidates including without limitation NKTR-181. Other important risks and uncertainties are detailed in Nektar's reports and other filings with the Securities and Exchange Commission, including without limitation, those risks and uncertainties set forth in Nektar's Form 10-Q for the quarter ended September 30, 2010, filed on November 4, 2010. Nektar undertakes no obligation to update forward-looking statements, whether as a result of new information, future events or otherwise.

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(1) Harstall, C. How prevalent is chronic pain? *Pain Clinical Updates* X, 1—4 (2003).

(2) IMS, NSP, NPA and Defined Health 2010 Estimates.

(3) Melnikova, I, Pain Market, *Nature Reviews Drug Discovery*, Volume 9, 589-90 (August 2010).

(4) Joint Meeting of the Anesthetic and Life Support Drugs Advisory Committee and the Drug Safety and Risk Management Advisory Committee, "*Risk Evaluation and Mitigation Strategies (REMS) for Extended-Release and Long-Acting Opioid Analgesics*", July 23-4, 2010.

(5) Morbidity and Mortality Weekly Report (MMWR), Emergency Department Visits Involving Nonmedical Use of Selected Prescription Drugs --- United States, 2004—2008, **59(23);705-709 (June 2010).**

SOURCE Nektar Therapeutics