Ligand Launches AVINZA, Once-Daily Treatment for Chronic, Moderate-to-Severe Pain

-- Ligand’s Fifth Product Backed by 80 Sales Representatives, Five Peer-Reviewed Journal Articles --

San Diego, Calif., July 01, 2002 - Ligand has launched its fifth product, AVINZA (morphine sulfate extended-release capsules), for the once-daily treatment of moderate-to-severe pain in patients who require continuous, around-the-clock opioid therapy for an extended period of time, the company announced today.

"AVINZA is a new pain medicine with the distinct advantage that it only needs to be taken once a day," said Christine Miaskowski, PhD, RN, president of the American Pain Society. "As a result, AVINZA provides around-the-clock treatment for chronic pain. This is especially important for cancer patients, half of whom experience unrelieved pain. One of the major challenges for these patients is to get them to take their pain medication regularly."

AVINZA is now available in retail pharmacies nationwide. Product promotion is underway by approximately 80 Ligand sales representatives, who are targeting specialists including oncologists, hematologists, HIV specialists and physicians in general pain centers.

"Launching AVINZA into a multibillion-dollar market is a major milestone in Ligand's commercial evolution into a profitable, high-growth specialty pharmaceutical company," said Thomas Silberg, executive vice president and chief operating officer of Ligand. "We look forward to an excellent launch. We have a well-trained sales force, and five peer-reviewed journal articles that confirm AVINZA’s clinical value in large-scale clinical trials and pharmacokinetic studies. In addition, managed care organizations have responded very favorably to the attributes of AVINZA, and we expect the product to enjoy rapid and broad formulary acceptance. We are well along in discussions with several large, key managed care groups."

AVINZA's Average Wholesale Price (AWP) is about 10% less than that of its largest competitor, OxyContin, at every "equianalgesic" dose, based on the generally accepted convention that 1.5 milligrams of morphine (the active ingredient in AVINZA) provides an equal analgesic effect as 1 milligram of oxycodone (the active ingredient in OxyContin). AVINZA is available in 30, 60, 90 and 120 mg. capsules at these average wholesale prices per bottle of 100 capsules:

Background on AVINZA
The U.S. Food and Drug Administration granted marketing approval for AVINZA in late March. AVINZA was developed by Elan (NYSE: ELN), which licensed the U.S. and Canadian marketing rights to Ligand in 1998.

AVINZA will compete in the sustained-release opioid market, which grew to an estimated $2.3 billion in the U.S. in 2001, the largest initial market Ligand has entered to date. The market, which has grown by an average of 46% annually since 1996, includes sales of OxyContin, Duragesic, MS Contin, Oramorph SR and Kadian. Despite this recent growth, studies indicate that as many as 30-85% of select chronic pain patients still are undertreated.

Negotiations are ongoing between Ligand and Elan regarding a potential co-promotion agreement for AVINZA. Ligand's goal through the co-promotion option with Elan is to optimize AVINZA's potential by increasing sales force coverage of a broad universe of pain specialists and other key physician groups treating chronic, moderate-to-severe pain.

AVINZA has been studied in more than 140 healthy volunteers and 560 patients with chronic, moderate-to-severe pain from diseases of malignant and non-malignant origin. The patients included people who were receiving or had received chronic opioid therapy, as well as people who had a sub-optimal analgesic response to acetaminophen and/or NSAIDs.

As described in its approved labeling, AVINZA consists of two components: an immediate-release component that rapidly achieves plateau morphine concentrations in plasma, and an extended-release component that maintains plasma concentrations throughout a 24-hour dosing interval. AVINZA once-daily creates and maintains a plateau-like plasma concentration profile after steady-state plasma morphine concentrations have been achieved.

According to its approved labeling, AVINZA should be taken only once per day, with or without food. Patients who have difficulty swallowing an AVINZA capsule can open it, sprinkle its contents on applesauce, and swallow without chewing. AVINZA capsules
must not be chewed, crushed or dissolved due to the risk of rapid release and absorption of a potentially fatal dose of morphine. The daily dose of AVINZA must be limited to 1600 mg./day. Higher doses contain a quantity of fumaric acid that has not been demonstrated to be safe, and which may result in serious renal toxicity.

In clinical studies, AVINZA's side effects were dose-dependent and similar to those typically seen with opioid therapy. The most common serious side effects reported with administration of AVINZA capsules were vomiting, nausea, death (due to underlying malignancy), dehydration, dyspnea and sepsis. Other common (>10% frequency) adverse events were constipation, somnolence and headache.

AVINZA is not intended as a "P.R.N." (as needed) analgesic and is not indicated for postoperative use. Morphine is a Schedule II controlled substance that can be abused in a manner similar to other legal or illicit opioids. However, AVINZA's approved labeling notes that concerns about abuse, addiction and diversion should not prevent proper pain management. Toward this end, Ligand has developed a risk-management program for AVINZA and continues to work closely with the FDA on it.

Published Journal Articles on AVINZA


About Ligand

Ligand (Nasdaq: LGND) discovers, develops and markets new drugs that address critical unmet medical needs of patients in the areas of cancer, skin diseases, men's and women's hormone-related diseases, osteoporosis, metabolic disorders, and cardiovascular and inflammatory diseases. Ligand's proprietary drug discovery and development programs are based on its leadership position in gene transcription technology, primarily related to Intracellular Receptors (IRs) and Signal Transducers and Activators of Transcription (STATs).

Caution Regarding Forward-Looking Statements

This news release contains certain forward-looking statements by Ligand that involve risks and uncertainties and reflect the company's judgment as of the date of this release. These statements include those related to product launch, co-promotion, product potential, benefits of AVINZA for patients, market size and growth, and sales strategy. Actual events or results may differ from Ligand's expectations. For example, AVINZA sales may not meet expectations due to lack of doctor or patient acceptance; supply or distribution problems; decline in the market; or our sales strategy. In addition, Ligand and Elan may not agree on a co-promotion plan in a timely manner. AVINZA is a controlled substance and therefore has a number of special regulatory restrictions. It may be abused or misused, causing injury or death. Any of these factors could reduce sales significantly. Additional information concerning these and other risk factors affecting Ligand's business can be found in prior press releases as well as in the company's public periodic filings with the Securities and Exchange Commission, which are available via www.ligand.com. Ligand disclaims any intent or obligation to update these forward-looking statements beyond the date of this release. This caution is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995.

Full prescribing information for Ligand's products can be obtained in the United States from Ligand Professional Services by calling 800-964-5836, or on Ligand's internet site at www.ligand.com.

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