December 8, 2008

Ligand Presents Positive LGD-4665 Clinical Trial Results at the American Society of Hematology Annual Meeting

SAN DIEGO-- Ligand Pharmaceuticals Incorporated (NASDAQ:LGND) today announced results for LGD-4665 from multiple Phase I clinical trials and interim findings from a Phase II trial in ITP patients in a poster presentation at the American Society of Hematology (ASH) 50th Annual Meeting, being held at the Moscone Center in San Francisco on December 6-9, 2008. Poster III-488 (Abstract 3406) will be presented from 5:30 to 7:30 pacific time in Hall A. The poster presentation can be viewed by visiting the Investor Relations section of Ligand's website at www.ligand.com.

The data compile information from six completed Phase I studies and one ongoing Phase II study. To date, more than 175 humans have been dosed with LGD-4665 and the data indicate the drug is a highly potent agent at boosting platelet counts, has unique and differentiable drug pharmacology from other products on the market, and is generally safe and well tolerated.

Highlights from Phase I Studies

In the Phase I studies, Ligand evaluated single, once-daily and once-weekly dosing regimens of LGD-4665 and presented safety, tolerability, pharmacokinetic (PK), and pharmacodynamic (PD) results. Other Phase I studies included a drug interaction study, a food effect study and a study in subjects with moderately impaired liver function to investigate any impact on LGD-4665 systemic exposure.

- Daily and weekly dosing regimens produced sustained platelet increases in a dose-dependent fashion, suggesting potential therapeutic uses in thrombocytopenic patients with a variety of clinical etiologies.
- In a Phase I food effect study, there was minimal to no impact observed from a high-fat and high-caloric breakfast on the extent of gastrointestinal absorption of LGD-4665.
- A Phase I drug interaction study demonstrated that LGD-4665 has no impact on the metabolism of simvastatin, a sensitive substrate commonly used to evaluate the potential for drug-drug interactions.
- In a Phase I hepatic impairment study, drug exposure to LGD-4665 was increased modestly with no change in the half-life in subjects with moderately impaired hepatic function.
- The safety data showed that the drug was generally safe and well tolerated for all dosing regimens.

Summary of Phase IIa ITP Interim Results

In April 2008, Ligand initiated a Phase IIa trial evaluating LGD-4665 in ITP patients in a randomized double-blind, placebo-controlled, proof of concept study. Twenty-four patients

are being randomized at a 2:1 ratio for 7.5mg/day LGD-4665 versus placebo. Treatment begins with a single 45 mg loading dose and continues at 7.5 mg once-daily for six weeks. Efficacy is evaluated by the proportion of patients who reach 50,000/µL platelets within six weeks from a baseline entry criteria of ≤ 30,000/µL. After six weeks of double-blind treatment, patients who would benefit have the option to continue in open-label treatment for another 14 weeks, during which time the dosing can be adjusted to 5, 7.5, or 10 mg/day.

To date, 21 patients have been enrolled in the study and 15 have completed the six week blinded phase. Seven out of ten patients (70%) receiving drug achieved the primary endpoint of platelet levels of ≥ 50,000/mL, while none of the five patients receiving placebo had a response. Safety events were generally mild in nature and consistent with the safety events reported from the patients receiving placebo.

"These promising safety and pharmacodynamic results continue to demonstrate the potential use of this new molecule in thrombocytopenic patients that in the future could reduce the need for platelet transfusions and ultimately improve patient outcomes," said James B. Bussel, M.D., Director of the Platelet Disorders Center, Children's Blood Foundation Division at the New York-Presbyterian Hospital/Weill Cornell Medical Center in New York City.

"We are very pleased with the progress we have made developing LGD-4665. We have conducted efficient studies to help clearly differentiate our drug candidate from other TPO receptor agonists that are on the market. While ITP is an important initial indication to test the potential of LGD-4665, we see hepatitis C and chemotherapy induced thrombocytopenia as attractive medical targets given the profile of our drug," said John L. Higgins, President and Chief Executive Officer. "We believe the benefit of weekly dosing, high potency and minimal effect on drug metabolism in the presence of food and moderately impaired liver function are compelling factors of differentiation for future development and potential commercialization."

Ligand's Next Generation TPO Program

Ligand began work on its thrombopoietin (TPO) program in 2004 and has focused on discovering and developing novel proprietary drug candidates that mimic the activity of thrombopoietin. A patent was issued to Ligand on LGD-4665 and related compounds in early 2008. LGD-4665, the lead, small-molecule TPO receptor agonist under development at Ligand binds to the thrombopoietin receptor in a manner similar to TPO and activates the production of platelets in the bone marrow. In addition, several next-generation molecules from chemical series distinct from LGD-4665 are in the research phase at Ligand, with promising TPO receptor agonist activities.

About Thrombocytopenia

Thrombocytopenia or low platelet count is a common finding associated with a diverse range of clinical disorders or conditions affecting platelet production and/or survival. Prevalent clinical disorders where platelet loss or dysfunction leads to significant morbidity include idiopathic thrombocytopenia purpura (ITP), myelodysplastic syndrome (MDS), liver dysfunction associated with hepatitis C viral and severe cirrhosis, and chemotherapy-induced thrombocytopenia (CIT) as well as a number of other disorders. Thrombocytopenia is seen in 5-10% of all patients hospitalized for any cause. Several key indications for

thrombocytopenia include ITP, hepatitis C, and MDS/chemotherapy.

About Ligand Pharmaceuticals

Ligand discovers and develops new drugs that address critical unmet medical needs of patients in the areas of thrombocytopenia, hepatitis C, cancer, hormone-related diseases, osteoporosis, and inflammatory diseases. Ligand's proprietary drug discovery and development programs are based on its leadership position in gene transcription technology.

Caution Regarding Forward-Looking Statements

This press release contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, that involve risks and uncertainties and reflect Ligand's judgment as of the date of this press release. These statements also include those regarding data analysis and evaluation of LGD-4665, utility or potential benefits to patients, plans for continued development and further studies of LGD-4665 for the treatment of diseases associated with thrombocytopenia. Actual events or results may differ from our expectations. For example, there can be no assurance that other trials or evaluations of LGD-4665 or other TPO-related product candidates will not produce negative or inconclusive results or that they will not be inconsistent with previously conducted clinical trials, that data evaluation will be completed or demonstrate any hypothesis or endpoint, that outcomes of final analyses of data from the company's clinical trials will not vary from the initial analyses, that future clinical trial data will not demonstrate inadequate therapeutic efficacy, or that the prevalence or severity of adverse side effects will not be greater than anticipated, that LGD-4665 or other TPO-related product candidates will provide utility or benefits to certain patients, that any presentations will be favorably received, that LGD-4665 or other TPO-related product candidates will be useful as a single agent or in combination with other drugs, that marketing applications will be filed or, if filed, approved, or that clinical or commercial development of these product candidates will be initiated, completed or successful or that our rights to LGD-4665 and other TPO-related product candidates will not be successfully challenged. Our stock price may suffer as a result of the failure of any trials to be completed or meet their endpoints or if any actual events differ from our expectations. Additional information concerning these and other risk factors affecting Ligand can be found in prior press releases as well as in public periodic filings with the Securities and Exchange Commission, available via www.ligand.com. Ligand disclaims any intent or obligation to update these forward-looking statements beyond the date of this press release. This caution is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995.

Source: Ligand Pharmaceuticals Incorporated