July 26, 2013

Ligand Partner GlaxoSmithKline Receives Positive CHMP Opinion for REVOLADE™ in Thrombocytopenia Associated with Chronic Hepatitis C Infection

SAN DIEGO-- **Ligand Pharmaceuticals Incorporated (NASDAQ: LGND)** partner GlaxoSmithKline (NYSE: GSK) announced that today, the European Medicines Agency's Committee for Medicinal Products for Human Use (CHMP) issued a positive opinion recommending marketing authorization for GSK's REVOLADE™ (eltrombopag) as a treatment for low platelet counts (thrombocytopenia) in adult patients with chronic hepatitis C infection, where the degree of thrombocytopenia is the main factor preventing the initiation or limiting the ability to maintain optimal interferon-based therapy.

"We are very pleased with this latest development as we view Promacta/REVOLADE as an important medicine in this indication, even as the clinical landscape evolves with new potential hepatitis C therapies on the horizon. GSK recently reported increased sales for Promacta in the US, citing growth due to the use in the hepatitis C indication," commented John Higgins, President and Chief Executive Officer of Ligand. "We congratulate our partners at GSK on this achievement and commend GSK's global Promacta/REVOLADE team on its continued commitment to bring this medicine to patients in need."

The CHMP opinion is based on review of safety and efficacy data for eltrombopag, including two randomized, double-blind, placebo controlled, multi-center Phase 3 studies of more than 1,500 patients.

A CHMP positive opinion is one of the final steps before marketing authorization is granted by the European Commission, but does not always result in marketing authorization.

More about thrombocytopenia related to chronic Hepatitis C Infection

Hepatitis C virus infection (HCV) is the most common blood borne viral infection, affecting up to 170 million people world-wide. Chronic HCV infection is associated with chronic liver disease which can lead to a number of blood-related disorders including low platelet count (thrombocytopenia). Treatment with pegylated interferon and ribavirin is the current standard of care for patients with HCV, however both the European Association for the Study of the Liver guidelines and the American Association for the Study of Liver Diseases report the presence of thrombocytopenia among the relative contraindications to antiviral therapy [1,2].

More about REVOLADE™ (eltrombopag)

In the European Union (EU), eltrombopag is currently approved as a treatment for thrombocytopenia in patients with chronic immune (idiopathic) thrombocytopenia. In the US,

eltrombopag is marketed under the trade name PROMACTA® and is currently approved as a treatment for patients with chronic immune (idiopathic) thrombocytopenia who have had insufficient response to corticosteroids, immunoglobulins, or splenectomy and as a treatment for thrombocytopenia in patients with chronic hepatitis C infection to allow the initiation and maintenance of interferon-based therapy.

The most important serious adverse reactions identified in the ITP or HCV trials were hepatotoxicity, including hepatic decompensation events and thrombotic/thromboembolic events.

The most common adverse reactions (experienced by at least 10 % of patients) of any grade in the ITP or HCV trials included; headache, anemia, decreased appetite, insomnia, cough, nausea, diarrhea, alopecia, pruritus, myalgia, pyrexia, fatigue, influenza like illness, asthenia, chills and peripheral oedema. For the full EU Summary of Product Characteristics for Revolade™ and full US Prescribing Information, including BOXED WARNING and Medication Guide for Promacta® please visit http://www.gsk.com/products/index.htm.

Important safety information for Revolade™

There is an increased risk for adverse reactions, including potentially fatal hepatic decompensation and thromboembolic events, in thrombocytopenic HCV patients with advanced chronic liver disease, as defined by low albumin levels ≤ 35 g/L or MELD score ≥ 10, when treated with eltrombopag in combination with interferon based therapy. Treatment with eltrombopag in these patients should be initiated only by physicians experienced in the management of advanced HCV, and only when the risks of thrombocytopenia or withholding antiviral therapy necessitate intervention. If treatment is considered clinically indicated, close monitoring of these patients is required.

Risk of hepatotoxicity

Eltrombopag administration can cause abnormal liver function. Liver enzyme elevations have been reported in the ITP and HCV populations. Most patients being treated with eltrombopag in combination with peginterferon/ribavirin will experience indirect hyperbilirubinaemia. Hepatic enzymes should be measured prior to the initiation of eltrombopag therapy. Discontinue therapy if liver enzymes do not stabilize or are accompanied by worsening liver function.

Hepatic decompensation (use with interferon)

Chronic HCV patients with cirrhosis may be at risk of hepatic decompensation when receiving alpha-interferon therapy. Hepatic decompensation was reported in controlled clinical studies in thrombocytopenic patients with HCV treated with eltrombopag in combination with interferon-based antiviral therapy. Patients should be monitored closely for signs and symptoms suggestive of hepatic decompensation, in particular, ascites, hepatic encephalopathy and variceal hemorrhage. Eltrombopag therapy should be terminated if antiviral therapy is discontinued for hepatic decompensation. Patients with poor liver function at baseline [albumin ≤35g/L or MELD score ≥ 10] should be closely monitored.

Thrombotic/Thromboembolic complications

Venous and arterial thrombotic/thromboembolic complications have occurred with eltrombopag therapy. Portal vein thrombosis was the most common thromboembolic event reported in controlled clinical studies in thrombocytopenic patients with HCV. Patients with poor liver function at baseline are at increased risk of thromboembolic events. Patients should be monitored closely for signs and symptoms suggestive of thromboembolic events.

Combination with direct acting antiviral agents

Safety and efficacy have not been established in combination with direct acting antiviral agents approved for treatment of chronic hepatitis C infection.

GlaxoSmithKline – one of the world's leading research-based pharmaceutical and healthcare companies – is committed to improving the quality of human life by enabling people to do more, feel better and live longer. For further information please visit www.gsk.com.

About Ligand Pharmaceuticals

Ligand is a biopharmaceutical company that develops and acquires assets it believes will generate royalty revenues and, under its lean corporate cost structure, produce sustainable profitability. Ligand has a diverse asset portfolio addressing the unmet medical needs of patients for a broad spectrum of diseases including thrombocytopenia, multiple myeloma, diabetes, hepatitis, muscle wasting, dyslipidemia, anemia and osteoporosis. Ligand's Captisol platform technology is a patent-protected, chemically modified cyclodextrin with a structure designed to optimize the solubility and stability of drugs. Ligand has established multiple alliances with the world's leading pharmaceutical companies including GlaxoSmithKline, Onyx Pharmaceuticals, Merck, Pfizer, Baxter International, Bristol-Myers Squibb, Celgene, Lundbeck Inc., Eli Lilly & Co., Spectrum Pharmaceuticals and The Medicines Company. Please visit www.captisol.com for more information on Captisol and www.ligand.com for more information on Ligand.

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Forward-Looking Statements

This news release contains forward-looking statements by Ligand that involve risks and uncertainties and reflect Ligand's judgment as of the date of this release. These include statements regarding clinical development of REVOLADE, market size and possibility of commercial success, efficacy, potency, and competitiveness. Actual events or results may differ from our expectations. For example, there can be no assurance that REVOLADE will progress through clinical development or receive required regulatory approvals within the expected timelines or at all, that further clinical trials will confirm any safety or other characteristics or profile, that there will be a market of any size for REVOLADE or that REVOLADE will be beneficial to patients or successfully marketed. The failure to meet expectations with respect to any of the foregoing matters may have a negative effect on Ligand's stock price. Additional information concerning these and other risk factors affecting Ligand's business can be found in prior press releases available via www.ligand.com as well as in Ligand's public periodic filings with the Securities and Exchange Commission at www.sec.gov. 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.

[1] European Association for the Study of the Liver. EASL Clinical Practice Guidelines: management of hepatitis C virus infection. J Hepatol 2011; 55: 245–64.

[2] Ghany MG, Strader DB, Thomas DL, et al. Diagnosis, management, and treatment of hepatitis C: an update. Hepatology 2009; 49: 1335–74.

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