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Ligand Partner CASI Pharmaceuticals Launches EVOMELA® in China

SAN DIEGO--(BUSINESS WIRE)-- **Ligand Pharmaceuticals Incorporated (NASDAQ: LGND)** partner CASI Pharmaceuticals, Inc. (Nasdaq: CASI), a U.S. biopharmaceutical company focused on developing and accelerating the launch of innovative therapeutics and pharmaceutical products in China, the U.S., and throughout the world, announces the official product launch of melphalan hydrochloride for injection (EVOMELA) in China which is the first commercial product launch for CASI. EVOMELA uses Ligand's Captisol technology in its formulation.

Melphalan hydrochloride for injection (EVOMELA) received market approval by the China National Medical Products Administration (NMPA) for use as high-dose conditioning treatment prior to hematopoietic progenitor (stem) cell transplant in patients with multiple myeloma, and as a palliative treatment of patients with multiple myeloma for whom oral therapy is not appropriate. It is the only approved melphalan product available in China.

About Multiple Myeloma

Multiple myeloma is a malignant hematological disorder that is characterized by abnormal proliferation of clonal plasma cells in the bone marrow and the secretion of monoclonal immunoglobulins that are detectable in the serum or urine. CASI Pharmaceuticals estimates that multiple myeloma accounts for 10-13% of hematological malignancies[1,2] and in Western countries, the estimated incidence is 5.6 cases per 100,000 persons[2]. The estimated incidence of multiple myeloma in China is ~2.0 cases per 100,000 persons[3], for an estimated annual incidence of approximately 27,800[3]. The estimated number of patients in China with multiple myeloma who are candidates for hematopoietic progenitor (stem) cell transplantation is estimated to be approximately 16,900/year. The current number of patients with multiple myeloma who undergo hematopoietic progenitor (stem) cell transplantation in China is estimated to be approximately 800/year. Autologous stem cell transplantation (ASCT) has been demonstrated to improve complete response rates and prolong median overall survival in patients with multiple myeloma[1,3] and is considered standard of care for transplant-eligible patients. The preferred conditioning regimen for ASCT is melphalan[1].

About Captisol®

Captisol is a patent-protected, chemically modified cyclodextrin with a structure designed to optimize the solubility and stability of drugs. Captisol was invented and initially developed by scientists in the laboratories of Dr. Valentino Stella, University Distinguished Professor at the University of Kansas' Higuchi Biosciences Center for specific use in drug development and formulation. This unique technology has enabled several FDA-approved products, including Amgen's KYPROLIS®, Baxter International's NEXTERONE®, Acrotech Biopharma L.L.C.'s

EVOMELA® (US marketer), Melinta Therapeutics' BAXDELA™ and Sage Therapeutics' ZULRESSO™. There are many Captisol-enabled products currently in various stages of development.

About CASI Pharmaceuticals

CASI Pharmaceuticals is a U.S. biopharmaceutical company focused on developing and accelerating the launch of pharmaceutical products and innovative therapeutics in China, the U.S., and throughout the world. More information on CASI is available at www.casipharmaceuticals.com.

About Ligand Pharmaceuticals

Ligand is a biopharmaceutical company focused on developing or acquiring technologies that help pharmaceutical companies discover and develop medicines. Ligand's business model creates value for stockholders by providing a diversified portfolio of biotech and pharmaceutical product revenue streams that are supported by an efficient and low corporate cost structure. Ligand's goal is to offer investors an opportunity to participate in the promise of the biotech industry in a profitable, diversified and lower-risk business than a typical biotech company. Ligand's business model is based on doing what we do best: drug discovery, early-stage drug development, product reformulation and partnering. Ligand partners with other pharmaceutical companies to leverage what they do best (late-stage development, regulatory management and commercialization) to ultimately generate our revenue. Ligand's Captisol® platform technology is a patent-protected, chemically modified cyclodextrin with a structure designed to optimize the solubility and stability of drugs. OmniAb® is a patent-protected transgenic animal platform used in the discovery of fully human mono-and bispecific therapeutic antibodies. Ligand has established multiple alliances, licenses and other business relationships with the world's leading pharmaceutical companies including Amgen, Merck, Pfizer, Gilead, Janssen, Baxter International and Eli Lilly.

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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 the expected royalties Ligand expects to receive from the sale of Evomela in China and the estimated patient population size of multiple myelopma in the China and elsewhere. Actual events or results may differ from our expectations. For example, CASI Pharmaceuticals could fail to execute on its business strategy in China; CASI Pharmaceuticals' lack of experience in manufacturing products and uncertainty about its resources and capabilities to do so on a clinical or commercial scale; CASI Pharmaceuticals may encounter issues, delays or other challenges in launching or commercializing Evomela in China, including issues related to market acceptance and reimbursement; CASI Pharmaceuticals may encounter unexpected safety or tolerability issues with Evomela; and the number of patients in China or elsewhere with multiple myeloma may be significantly smaller than CASI Pharmaceuticals has reported. The failure to meet expectations with respect to any of the foregoing matters may reduce Ligand's stock

price. Additional information concerning these and other important risk factors affecting Ligand can be found in Ligand's prior press releases available at www.ligand.com as well as in Ligand's public periodic filings with the Securities and Exchange Commission, available at www.sec.gov. Ligand disclaims any intent or obligation to update these forward-looking statements beyond the date of this press release, except as required by law. This caution is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995.

References

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