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Ligand Subsidiary Vernalis and PhoreMost Limited Announce Drug Discovery Collaboration for Novel Oncology Target

SAN DIEGO & CAMBRIDGE, England--(BUSINESS WIRE)-- Ligand Pharmaceuticals Incorporated (NASDAQ: LGND) and PhoreMost Limited today announced the signing of a research collaboration agreement between Ligand's subsidiary Vernalis and PhoreMost on an undisclosed novel oncology target.

PhoreMost has identified and validated the target using its next-generation *SITESEEKER*® phenotypic screening technology. Ligand will now apply its Vernalis Design Platform (VDP) to design small molecule inhibitors against the target, to help rapidly progress compounds through hit-to-lead and lead optimization stages. The objective of the collaboration is to out-license the resulting compounds for further development. Under the terms of the agreement, Vernalis and PhoreMost will share downstream revenues of any future out-licenses. Based on Ligand's contribution and stage of development at the time of licensing, Ligand will be entitled to a scaling interest in license economics based on development stage.

"This collaboration with PhoreMost on a novel oncology target has the potential to generate highly valuable new drug candidates. This is another demonstration of the successful integration of Vernalis since its acquisition by Ligand in October of last year," said John Higgins, Chief Executive Officer of Ligand.

"We are excited to be joining forces with Vernalis, whose impressive track record of developing first-in-class drugs is highly complementary to our core SITESEEKER platform. SITESEEKER systematically opens up new druggable space across the entire human proteome, rapidly identifying sites in specific disease driving targets that can't be readily seen using conventional methods," said Chris Torrance, Chief Executive Officer of PhoreMost.

About the Vernalis Design Platform (VDP)

Vernalis R&D Limited is a Ligand subsidiary based in Cambridge, UK, and is a world leader in structure-guided drug discovery. The Vernalis Design Platform (VDP) integrates protein structure determination and engineering, fragment screening and molecular modeling, with medicinal chemistry, to enable success in novel drug discovery programs against highly-challenging targets. A key element to the success of VDP is establishing a robust platform for drug discovery for each target to validate hit identification using multiple proprietary assay and biophysical systems. Vernalis has collaborations across many therapeutic areas, including oncology, CNS, anti-infectives and inflammation, with global partners and a heritage of successful internal drug discovery in oncology and anti-infectives.

About PhoreMost Ltd

PhoreMost has developed a next-generation phenotypic screening platform called SITESEEKER® that can discern the best new targets for future therapy and crucially, how to drug them, which has the potential to significantly increase the diversity and affordability of novel therapeutics for cancer and other unmet diseases. Based on the Company's core proprietary 'Protein Interference' technology, SITESEEKER® systematically unmasks cryptic druggable sites across the entire human genome and directly links them to useful therapeutic functions in a live-cell context. Using this platform, PhoreMost is building a pipeline of novel drug discovery programmes aimed at addressing a range of unmet diseases. www.phoremost.com

About Ligand Pharmaceuticals

Ligand is a biopharmaceutical company focused on developing or acquiring technologies that help pharmaceutical companies discover and develop medicines. Our 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. Our 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. Our business model is based on doing what we do best: drug discovery, early-stage drug development, product reformulation and partnering. We partner 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. The Vernalis Design Platform (VDP) integrates protein structure determination and engineering, fragment screening and molecular modelling, with medicinal chemistry, to enable success in novel drug discovery programs against highly-challenging targets. 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. Follow Ligand on Twitter @Ligand_LGND.

Forward-Looking Statements

This press 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 forward-looking statements include comments regarding the plans of Vernalis and PhoreMost to identify and validate compounds as potential drug candidates; Vernalis’ intentions to out-licensing any compounds identified in collaboration with PhoreMost; and the potential for economic returns based on any out-licenses to third parties. Actual events or results may differ from Ligand’s and Vernalis' expectations. For example, the collaboration with PhoreMost may not discover or validate compounds which support further development; it may take more time or resources to identify or validate compounds using the SITESEEKER or VDP platforms than Vernalis or PhoreMost expect; and Vernalis and PhoreMost may not be successful in identifying out-license partners or entering into license agreements on favorable terms, if at all. Many of these risks also apply to the other programs which

comprise Ligand’s shots-on-goal portfolio. 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 (including Ligand’s current reliance on revenues based on sales of Kyprolis®, and various risks to which Ligand’s Captisol® cyclodextrin operations are subject) can be found in Ligand's prior press releases and its periodic filings with the Securities and Exchange Commission (including its most recent annual report on Form 10-K and subsequent quarterly reports on Form 10-Q), available at www.sec.gov, as updated by future period reports filed with the Securities and Exchange Commission. Ligand disclaims any intent or obligation to update these forward-looking statements beyond the date of this report. This caution is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995.

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