

February 3, 2015



## Ligand Signs License Agreement with Sermonix for Lasofoxifene

SAN DIEGO-- **Ligand Pharmaceuticals Incorporated (NASDAQ: LGND)** announces the signing of a license agreement with Sermonix Pharmaceuticals LLC for the development and commercialization of oral lasofoxifene in the United States and additional territories. Under the terms of the agreement, Ligand has received an undisclosed initial payment, and is entitled to receive up to \$45 million in potential regulatory and commercial milestone payments and tiered royalties of 6% to 10% on future net sales. Lasofoxifene is an estrogen partial agonist for the treatment of osteoporosis and other diseases.

“Lasofoxifene has a promising profile and a large clinical dataset, and we are excited to see development of the oral form move forward in additional territories,” commented John Higgins, Chief Executive Officer of Ligand. “Sermonix is highly familiar with lasofoxifene and is well-positioned to advance its development, and we look forward to their progress with this important program. This transaction represents yet another partnership for lasofoxifene as we continue to build on our portfolio of more than 100 shots-on-goal.”

Based on the lasofoxifene safety and efficacy data from clinical trials in more than 15,000 women, Sermonix plans to seek regulatory approvals in several women’s health indications.

“Sermonix is excited to partner with Ligand on lasofoxifene, a best-in-class selective estrogen receptor modulator, or SERM, and to seek regulatory approval of this remarkable drug,” stated David Portman, M.D., Chief Executive Officer of Sermonix. “The robust clinical development program to date has demonstrated efficacy for many common conditions greatly impacting women’s health in mid-life, with targeted beneficial effects on the vagina, bone and breast. With several SERMs approved in the last two years, lasofoxifene is well-positioned to offer women a tremendous and much-needed alternative to hormone therapy to improve their overall menopausal health.”

### **About Lasofoxifene and Ligand’s Lasofoxifene Partnerships**

Lasofoxifene was discovered through a research collaboration between Ligand and Pfizer that began in 1991. The oral, 0.5 mg form of lasofoxifene tartrate was developed by Pfizer under the trade name Fablyn®, and progressed through regulatory approval in the EU. After Pfizer acquired Wyeth and its Conbriza® (bazedoxifene), a similar SERM program, rights to all forms of lasofoxifene reverted to Ligand in 2011. In July 2013 Ligand licensed lasofoxifene to Azure Biotech for the development of a novel formulation targeting an underserved market in women's health. Also in July 2013 Ligand licensed to Ethicor Pharmaceuticals Ltd rights to manufacture and distribute oral lasofoxifene as an unlicensed medicinal product in the European Economic Area, Switzerland and the Indian Subcontinent.

### **About Sermonix Pharmaceuticals**

Sermonix Pharmaceutical LLC is a specialty pharmaceutical company focused on bringing new and emerging late-stage women's health products through clinical development and regulatory approval. Founded in 2014 Sermonix has assembled considerable talent within women's healthcare clinical development and product commercialization. Dr. David Portman, Sermonix's founder and CEO, was principal investigator for the Phase 2 and Phase 3 lasofoxifene clinical trials and was actively involved during the drug's clinical development. Dr. Portman has experience in all stages of the regulatory approval process. James Symons, MS, PhD, is VP of Clinical Development at Sermonix and was the global clinical lead for the lasofoxifene development program for VVA as well as for multiple women's health submissions to the FDA during his tenure at Pfizer.

## **About Ligand Pharmaceuticals**

Ligand is a biopharmaceutical company with a business model that is based upon the concept of developing or acquiring royalty revenue generating assets and coupling them to a lean corporate cost structure. Ligand's goal is to produce a bottom line that supports a sustainably profitable business. By diversifying the portfolio of assets across numerous technology types, therapeutic areas, drug targets and industry partners, we offer investors an opportunity to invest in the increasingly complicated and unpredictable pharmaceutical industry. In comparison to its peers, we believe Ligand has assembled one of the largest and most diversified asset portfolios in the industry with the potential to generate revenue in the future. These therapies seek to address the unmet medical needs of patients for a broad spectrum of diseases including diabetes, hepatitis, muscle wasting, Alzheimer's disease, dyslipidemia, anemia, asthma 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 (a subsidiary of Amgen Inc.), Merck, Pfizer, Baxter International, Lundbeck Inc., Eli Lilly & Co. and Spectrum Pharmaceuticals. Please visit [www.captisol.com](http://www.captisol.com) for more information on Captisol and [www.ligand.com](http://www.ligand.com) for more information on Ligand.

Follow Ligand on Twitter @Ligand\_LGND.

## **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 lasofoxifene, market size and possibility of commercial success, efficacy, potency, competitiveness and the strength of Ligand's product portfolio. Actual events or results may differ from our expectations. For example, there can be no assurance that lasofoxifene 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 lasofoxifene or that lasofoxifene will be beneficial to patients or successfully marketed. In addition, there can be no assurance that Ligand will achieve its guidance or forecast. 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](http://www.ligand.com) as well as in Ligand's public periodic filings with the Securities and Exchange Commission at [www.sec.gov](http://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.

Ligand Pharmaceuticals Incorporated

John Higgins, CEO

Erika Luib, Investor Relations

(858) 550-7896

@Ligand\_LGND

or

LHA

Bruce Voss

[bvoss@lhai.com](mailto:bvoss@lhai.com)

(310) 691-7100

@LHA\_IR\_PR

Source: Ligand Pharmaceuticals Incorporated