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Ligand Completes Acquisition of Icagen Core Assets, Partnered Programs and Ion Channel Technologies

SAN DIEGO--(BUSINESS WIRE)-- **Ligand Pharmaceuticals Incorporated (NASDAQ: LGND)** announces the completion of its acquisition of the core assets of Icagen's North Carolina operations. As previously announced, the purchase price was $15 million in cash, and Icagen is entitled to receive additional cash payments based on certain revenue achievements.

"We are very pleased to add the Icagen technologies, partnerships and this profitable business to Ligand," said John Higgins, Chief Executive Officer of Ligand. "We all know how extremely challenging the current business environment is, and I want to commend the teams on both sides who worked together to get this deal done. It's a fantastic acquisition that will enable Ligand to expand its services to current partners and drive new collaborations. We expect the Icagen ion channel capabilities will have particular synergy with our Vernalis and OmniAb® antibody discovery platforms. We welcome our new Icagen colleagues to Ligand."

Higgins continued, "While we adjust to conducting business during the pandemic, Ligand's balance sheet remains very strong, and we continue to generate positive cash flow. We have a successful track record of acquiring innovative companies, and subsequently growing revenue, increasing our partner portfolio, and leveraging technology and customer synergies. Given our significant financial resources and talented operating team, we are well positioned to pursue acquisitions and new opportunities to expand our business."

The acquisition of Icagen brings Ligand the following:

- **Technology Platform.** Icagen's extensive biological capability focused on ion channels, transporters and x-ray fluorescence, along with a strong track record in novel drug discovery from screening to lead optimization. Ion channels are key components in a wide variety of biological processes that involve rapid changes in cells and have broad therapeutic applicability including cancer, metabolic disease, pain, neurological diseases, infectious diseases and others.

- **Roche Collaboration** to develop and commercialize therapies for neurological diseases. The collaboration provides research funding, potential milestone payments of up to $274 million and tiered royalty payments should a drug be commercialized.

- **Cystic Fibrosis Foundation (CFF) Collaboration** to discover therapeutics to treat patients with cystic fibrosis caused by specific genetic mutations. The CFF collaboration allows for up to $11 million in research funding, milestone payments of up

to $59 million and tiered royalties on sales, should a product be commercialized.

- **Proprietary Service Unit to Drive New Collaborations and Revenue,**including a 32-person R&D team based in Raleigh, N.C., now known as Icagen, a Ligand Company, focused on drug discovery of ion channels and transporters. Icagen provides Ligand with an East Coast operation to efficiently serve partners and brings a portfolio of current or recent/active collaboration agreements with over 30 biopharma companies plus an ongoing business development pipeline.

- **Novel, Unpartnered Programs** that include six preclinical-stage assets applicable to a range of therapy areas including diabetes, Parkinson's disease, pain and other disorders.

About Icagen's Ion Channel Technology and Capability, and Integration with Ligand Technologies

Icagen's medicinal chemistry, *in silico* and computational chemistry (including artificial intelligence) applications and x-ray fluorescence assays integrate into and expand the drug discovery work at Vernalis as part of the Vernalis Design Platform (VDP). Additionally, Icagen's novel reagent generation and assays can support OmniAb antibody discovery programs and can be accessed by partners as part of the OmniAb platform when pursuing high-value ion channels and transporter antibody targets.

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 OmniAb technology platform is a patent-protected transgenic animal platform used in the discovery of fully human mono- and bispecific therapeutic antibodies. The Captisol® platform technology is a patent-protected, chemically modified cyclodextrin with a structure designed to optimize the solubility and stability of drugs. The Vernalis Design Platform (VDP) integrates protein structure determination and engineering, fragment screening and molecular modeling, with medicinal chemistry, to help enable success in novel drug discovery programs against highly-challenging targets. Ab Initio™ technology and services for the design and preparation of customized antigens enable the successful discovery of therapeutic antibodies against difficult-to-access cellular targets. Ligand has established multiple alliances, licenses and other business relationships with the world's leading pharmaceutical companies including Amgen, Merck, Pfizer, Sanofi, Janssen, Takeda, Gilead Sciences and Baxter International. For more information, please visit www.ligand.com.

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. The risks related to the Icagen transaction include the risk that the anticipated benefits of the acquisition may not be realized or may be affected by competition or other external events. There are additional risks that apply to statements regarding the assets and business being acquired from Icagen, the profitability of the assets and business being acquired from Icagen and the availability of synergies with Ligand's Vernalis and OmniAb businesses. Actual events or results may differ from our expectations. For example, there can be no assurance that the Roche or CFF programs will be able to successfully identify any desirable drug candidates or that any drug candidates developed in such programs would be clinically or commercially successful, all of which might result in the potential milestone payments and royalties not being earned; Ligand's ability to manage and integrate the assets and business acquired from Icagen; the availability of Icagen technology might not generate additional Vernalis and/or OmniAb business for Ligand; and Ligand's Vernalis and/or OmniAb partners might choose not to utilize Icagen technology (or might not achieve successful results, if they do). 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.

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