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Ligand Acquires Milestone and Royalty Rights to SB206 from Novan, Inc.

Phase 3 drug candidate targeting molluscum

SAN DIEGO--(BUSINESS WIRE)--**Ligand Pharmaceuticals Incorporated (NASDAQ: LGND)** announces the acquisition of economic rights to SB206 from Novan, Inc. SB206 is a Phase 3 topical antiviral gel for the treatment of skin infections, including molluscum contagiosum. Ligand will pay $12 million to Novan and in return will be entitled to receive a tiered royalty of 7% to 10%, as well as up to $20 million in regulatory and commercial milestones. Novan is responsible for all expenses to develop or commercialize SB206, and will use 100% of the proceeds from this transaction in the development and pursuit of regulatory approval for SB206.

“This deal enables Ligand to participate in the potential future revenue of a promising Phase 3 stage asset with a potential commercial launch in 2021. The drug candidate targets a condition mostly affecting children and with a significant unmet medical need,” said John Higgins, Chief Executive Officer of Ligand. “We believe Novan is a well-capitalized company with an experienced management team. This deal adds an attractive late-stage asset to our growing list of partnered programs that could be approved and launch within the next three years.”

About SB206

Novan is developing SB206 as a nitric-oxide-based topical gel for the treatment of viral skin infections, with a current focus on the treatment of molluscum contagiosum, a contagious skin infection caused by the *molluscipoxvirus*. There are currently no therapies approved by the U.S. Food and Drug Administration (FDA) for the treatment of molluscum. Nitric oxide has diverse biological activity within the body, affecting the immune, cardio/pulmonary and neurological systems, and depending on dose and release kinetics, nitric oxide can have agonistic or antagonistic effects. The role and mechanics of nitric oxide have been well researched. Novan’s technology platform is the first macromolecular platform to achieve stable, tunable and druggable delivery of nitric oxide. SB206, if approved, could be a topical, at-home, caregiver-applied therapy with a rapid treatment benefit. Novan’s issued U.S. and foreign patents and pending U.S. and foreign patent applications, if issued, relating to SB206 are projected to expire between 2026 and 2034.

About Molluscum

Molluscum contagiosum is a contagious skin infection caused by the *molluscipoxvirus*. Molluscum affects approximately six million people in the U.S. annually. The greatest incidence is in children aged one to 14 years. The average time to resolution is 13 months, and 13% of children experience lesions that may not resolve in 24 months. There is no FDA

approved treatment for molluscum, and caregivers are faced with potentially painful in-office, physician-administered treatments or off-label prescriptions with no molluscum indication, no proven clinical efficacy and tolerability issues. As a result of the inadequate treatment paradigm, over 50% of patients diagnosed with molluscum are untreated. The majority of patients that receive treatment undergo procedures with painful effects such as scraping, freezing, burning and blistering, and the remainder are often prescribed products indicated for the treatment of external genital warts.

About Novan

Novan, Inc. is a clinical development-stage biotechnology company focused on leveraging nitric oxide's naturally occurring anti-microbial and immunomodulatory mechanisms of action to treat a range of diseases with significant unmet needs. Novan believes that by deploying nitric oxide in a solid form, on demand and in localized formulations allows the company to potentially improve patient outcomes in a variety of dermatology, women's health and gastrointestinal diseases.

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. 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 report. These forward-looking statements include comments regarding Novan's planned clinical development program for SB206; the potential for future regulatory and commercial milestones as well as royalties from net sales of SB206, if approved; Ligand's expectations that it will not incur additional cash expenses in connection with the development or commercialization of SB206 and the expectation that Novan will have sufficient capital to complete its planned clinical trials for SB206; the possibility that the Phase 3 clinical trial could be the basis for registration, which means it would be sufficient to submit a new drug application (NDA) to

the FDA for SB206; the possibility that SB206 will show clinical benefit to treat patients with molluscum contagiosum; the size of the molluscum patient population; potential for product approvals by Ligand's partners within the next three years; and Novan's expectations regarding the length and scope of patents covering SB206. Actual events or results may differ from Ligand's expectations. For example, the development of SB206 is entirely dependent on Novan's success and Ligand will have no ability to direct the development program; Novan may abandon the development of SB206 if commercially reasonable; there can be no assurance that Novan will be able to successfully develop SB206, including initiation of a Phase 3 clinical trial or filing an NDA to the FDA; the FDA could require additional clinical trials than the planned clinical trials and the Phase 3 clinical trial may not be able to serve as a sufficient basis for an NDA filing with the FDA; Novan's planned Phase 3 clinical trial could fail to reach its primary endpoints or show sufficient safety or efficacy to continue development or submit an NDA to the FDA; even if approved, Novan may not successfully launch SB206; other products that Ligand expects will be launched by partners may fail their respective clinical development programs or may fail to launch successfully; and patents covering SB206 could be challenged or may not provide the expected scope of coverage to exclude other products used to treat molluscum. 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 periodic filings with the Securities and Exchange Commission (including its Form 10-K filed on February 28, 2019), 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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