August 10, 2020

Ligand to Acquire Pfenex Inc.

Expands Ligand's industry-leading technology offerings by adding a proprietary protein expression technology platform

Business expected to be earnings accretive in 2021 and to contribute substantial annual royalty revenue and cash flow going forward

SAN DIEGO--(BUSINESS WIRE)-- **Ligand Pharmaceuticals Incorporated (NASDAQ: LGND) and Pfenex Inc. (NYSE American: PFNX)** today announced the signing of a definitive agreement for Ligand to acquire all outstanding shares of Pfenex for $12.00 per share in cash or $438 million in equity value on a fully diluted basis. In addition, Ligand will pay $2.00 per share or $78 million as a Contingent Value Right (CVR) in the event a predefined regulatory milestone is achieved by December 31, 2021, for a total transaction value of up to $516 million. The closing of this transaction is subject to customary conditions and is expected to occur in the fourth quarter.

Pfenex is a development and licensing biotechnology company focused on leveraging its proprietary Pfenex Expression Technology®, which offers a robust, validated, cost-effective and scalable approach to recombinant protein production, and is especially well-suited for complex, large-scale protein production that cannot be made by more traditional systems. The technology is currently out-licensed for numerous commercial and development-stage programs, as well as used by Pfenex in developing an early stage product pipeline and nanobody discovery and development capability. The versatile platform has demonstrated consistent success in the production of enzymes, peptides, antibody derivatives and engineered non-natural proteins. Partners seek the Pfenex technology as it can contribute significant value to biopharmaceutical development programs by reducing development timelines and costs for manufacturing human therapeutics and vaccines.

Pfenex's expertise in the expression of complex proteins is highly complementary to Ligand's industry-leading antibody and drug enabling technologies, building a comprehensive discovery and early stage platform.

The acquisition of Pfenex is expected to contribute a number of strategic benefits to Ligand:

- Access to a proprietary, protein expression technology that is utilized in various commercial and development-stage biopharmaceutical programs.
- Versatile operating business that is focused on licensing and generating royalty revenue from partners.
- Profitable, cash-flow positive business that is projected to be accretive to Ligand's adjusted diluted EPS beginning in 2021.
- Numerous major collaborations with leading pharmaceutical companies for treatments and vaccines, including Merck, Jazz Pharmaceuticals, Serum Institute of India and Alvogen.

- Outlook for numerous additional licenses to be potentially secured over the next few years by Ligand leveraging the Pfenex technology.
- Validated discovery platform technology driving a deep pipeline of next generation product candidates for future internal and external development.
- State-of-the-art process development operation located in San Diego with scalable equipment and engineering capabilities designed to serve the world's largest pharmaceutical companies.

"Pfenex is an ideal strategic, business and cultural fit with Ligand. The acquisition holds potential to have a significantly positive scientific and financial impact on our business in the short and long term, similar to how our Captisol and OmniAb acquisitions have played out," said John Higgins, Chief Executive Officer of Ligand. "Pfenex will add an established, proven protein expression platform to Ligand that is highly complementary to our essential, proprietary drug discovery and formulation technologies. We are confident we will be able to quickly and efficiently grow the Pfenex business, along with our core existing technologies. It has been a very positive experience working with the Pfenex executive leadership and senior scientists while we put this deal together. We look forward to welcoming the talented Pfenex team to Ligand."

"The Ligand-Pfenex combination is an excellent strategic and cultural fit, presenting a unique opportunity to leverage the complementary strengths of robust platforms and rich pipelines, we expect it to position us even better to deliver on our joint vision to develop therapeutics that provide patients a better future," said Eef Schimmelpennink, Chief Executive Officer, Pfenex. "I want to recognize and thank the Pfenex team, and express deep gratitude to each of you for your many contributions over the years, which have enabled us to reach this milestone."

Financial Outlook

Ligand will provide a detailed outlook for the Pfenex business and financial contribution after the transaction has closed. At this time, Ligand expects the transaction will be modestly dilutive to 2020 adjusted diluted EPS, will provide $0.10 to $0.30 of adjusted diluted EPS accretion in 2021, and will provide significant annual adjusted diluted EPS accretion thereafter with the current forecast of $0.60 to $0.80 in 2022 and $1.25 to $1.50 in 2023.

Transaction Terms

Under the terms of the merger agreement, Ligand will commence a tender offer to acquire all of the outstanding shares of Pfenex common stock for $12.00 per share, or $438 million upfront in cash. This represents a 57% premium to the closing price of Pfenex's stock on August 10, 2020. Ligand will also pay holders of Pfenex common stock a price of $2.00 per share, or $78 million, as a Contingent Value Right in the event a predefined regulatory milestone is achieved by December 31, 2021. The tender offer is subject to customary conditions, including the tender of a majority of the outstanding shares of Pfenex common stock, and the expiration or termination of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976. The transaction is expected to close in the fourth quarter of 2020 and be funded by Ligand with cash on hand.

William Blair & Company, L.L.C. served as Pfenex's exclusive financial advisor. Wilson Sonsini Goodrich & Rosati served as Pfenex's legal counsel. Barclays Capital Inc. served as

Ligand's exclusive financial advisor. Latham & Watkins LLP served as Ligand's legal counsel.

Adjusted Financial Measures

The adjusted financial measures discussed above exclude changes in contingent liabilities, mark-to-market adjustment for amounts owed to licensors, non-cash stock-based compensation expense, non-cash debt-related costs, pro-rata non-cash net losses of Pfenex, non-cash Pfenex purchase price amortization and non-cash tax expense.

Ligand believes that the presentation of adjusted financial measures provides useful supplementary information to investors and reflects amounts that are more closely aligned with the cash profits for the period as the items that are excluded from adjusted net income are all non-cash items. Ligand uses these adjusted financial measures in connection with its own budgeting and financial planning. These adjusted financial measures are in addition to, and not a substitute for, or superior to, measures of financial performance prepared in conformity with GAAP.

About Pfenex Inc.

Pfenex is a development and licensing biotechnology company with commercial products focused on leveraging its proprietary protein production platform, Pfenex Expression Technology®, to develop next-generation and novel protein therapeutics to meaningfully improve existing therapies and create novel therapies for biological targets linked to critical, unmet diseases. Pfenex uses *P. fluorescens* bacterium, which are especially well-suited for complex, large-scale protein production that cannot be made by more traditional host systems. Using the patented Pfenex Expression Technology platform, Pfenex has created a broad pipeline that is diversified across multiple assets, including FDA-approved, next-generation and novel biopharmaceutical products.

Pfenex's lead product is Teriparatide Injection (previously referred to as PF708 and Bonsity™), a therapeutic equivalent candidate to Forteo® (Teriparatide Injection) exclusively licensed to Alvogen. Teriparatide Injection has been commercialized in the U.S. for, among other uses, the treatment of osteoporosis in certain patients at high risk for fracture, and marketing authorization applications are pending in other jurisdictions. Licensee Jazz Pharmaceuticals is utilizing the Pfenex Expression Technology to develop hematologic oncology products including PF743, a recombinant Erwinia asparaginase, and PF745, a half-life extended recombinant Erwinia asparaginase. In addition, Serum Institute of India and Merck & Co., Inc. are using the Pfenex Expression Technology platform to produce CRM197, a diphtheria toxoid carrier protein for use in prophylactic and therapeutic vaccines. With headquarters in San Diego, Pfenex has 88 employees, 24 U.S. patents, 16 active partnerships and 10 products available for partnering.

Pfenex investors and others should note that Pfenex announces material information to the public about Pfenex through a variety of means, including its website (http://www.pfenex.com/), its investor relations website (http://pfenex.investorroom.com/), press releases, SEC filings, public conference calls, corporate Twitter account (https://twitter.com/pfenex), Facebook page (https://www.facebook.com/Pfenex-Inc-105908276167776/timeline/), and LinkedIn page (https://www.linkedin.com/company/pfenex-inc) in order to achieve broad, non-exclusionary distribution of information to the public and

to comply with its disclosure obligations under Regulation FD. Pfenex encourages its investors and others to monitor and review the information Pfenex makes public in these locations as such information could be deemed to be material information. Please note that this list may be updated from time to time.

Cautionary Statement Regarding Forward-Looking Statements

This news release contains forward-looking statements by Pfenex that involve risks and uncertainties and reflect Pfenex's judgment as of the date of this release. These forward-looking statements include, without limitation, statements regarding: the timing of the anticipated acquisition and when and whether the anticipated acquisition ultimately will close; the potential contributions the acquisition is expected to bring, including technologies, collaborations and revenue streams, the potential to secure additional licenses, and development operations; and the expected impact on Ligand's future financial and operating results. Actual events or results may differ from these expectations due to risks and uncertainties inherent in Pfenex's business, including, without limitation: the risk that the conditions to the closing of the transaction are not satisfied, including the risk that Ligand may not receive sufficient number of shares tendered from Pfenex's stockholders to complete the tender offer; litigation relating to the transaction; uncertainties as to the timing of the consummation of the transaction and the ability of each of Ligand or Pfenex to consummate the transaction; risks that the proposed transaction disrupts the current plans and operations of Ligand or Pfenex; the ability of Pfenex to retain key personnel; regulatory developments, including risks related to achieving regulatory approvals and marketing authorizations; competitive responses to the proposed transaction; unexpected costs, charges or expenses resulting from the transaction; potential adverse reactions or changes to business relationships resulting from the announcement or completion of the transaction; Ligand's ability to achieve the growth prospects and synergies expected from the transaction, as well as delays, challenges and expenses associated with integrating Pfenex with its existing businesses; the impact of COVID-19 on Ligand's and Pfenex's businesses and the timing of the transaction; legislative, regulatory and economic developments; and other risks described in Pfenex's prior press releases and filings with the SEC. The failure to meet expectations with respect to any of the foregoing matters may reduce Pfenex's stock price. Pfenex disclaims any intent or obligation to update these forward-looking statements after the date hereof. This caution is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995.

About Ligand Pharmaceuticals

Ligand is a revenue-generating 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, Servier, Gilead Sciences and Baxter International. For more information, please visit www.ligand.com.

Follow Ligand on Twitter @Ligand_LGND.

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Additional Information and Where to Find it

The tender offer for the outstanding shares of Pfenex common stock referenced in this press release has not yet commenced. This press release is for informational purposes only and is neither an offer to purchase nor a solicitation of an offer to sell securities, nor is it a substitute

for the tender offer materials that Ligand and its acquisition subsidiary will file with the SEC, upon the commencement of the tender offer. At the time the tender offer is commenced, Ligand and its acquisition subsidiary will file a tender offer statement on Schedule TO and thereafter Pfenex will file a Solicitation/Recommendation Statement on Schedule 14D-9 with the SEC with respect to the tender offer. THE TENDER OFFER MATERIALS (INCLUDING AN OFFER TO PURCHASE, A RELATED LETTER OF TRANSMITTAL AND CERTAIN OTHER TENDER OFFER DOCUMENTS) AND THE SOLICITATION/RECOMMENDATION STATEMENT WILL CONTAIN IMPORTANT INFORMATION. PFENEX STOCKHOLDERS ARE URGED TO READ THESE DOCUMENTS CAREFULLY WHEN THEY BECOME AVAILABLE (AS EACH MAY BE AMENDED OR SUPPLEMENTED FROM TIME TO TIME) BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION THAT HOLDERS OF PFENEX SHARES SHOULD CONSIDER BEFORE MAKING ANY DECISION REGARDING TENDERING THEIR SHARES. Those materials will be made available to Pfenex's stockholders at no expense to them. In addition, all of those materials (and any other documents filed with the SEC) will be available at no charge on the SEC's website at www.sec.gov.

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Source: Ligand Pharmaceuticals Incorporated