Millendo Therapeutics Announces Successful Merger Completion

– Merger with OvaScience Closed –

– Shares of Combined Company to Commence Trading on the Nasdaq Capital Market Under New Symbol "MLND" on Monday, December 10th, 2018 –

– Proceeds of $85.4 Million to Fund Orphan Endocrine Pipeline –

– Pivotal Phase 2b/3 Trial for Prader-Willi Syndrome Initiating in 1Q19 –

ANN ARBOR, Mich., December 7, 2018 – Millendo Therapeutics, Inc. (Nasdaq: MLND), a clinical-stage biopharmaceutical company focused on developing novel treatments for orphan endocrine diseases, today announced that the proposed merger with OvaScience, Inc. has closed, following the approval of OvaScience's stockholders received on December 4, 2018. The combined company will operate under the name Millendo Therapeutics and will focus on the further development of Millendo's leading orphan endocrine pipeline, including livoletide, a potential first-in-class treatment for Prader-Willi syndrome (PWS), which Millendo expects will enter a pivotal Phase 2b/3 trial in the first quarter of 2019, and nevanimibe, which is in Phase 2b clinical development for the treatment of classic congenital adrenal hyperplasia (CAH). Millendo shares will continue to trade on the Nasdaq Capital Market under OvaScience's ticker symbol "OVAS" on Friday, December 7, 2018, and, during such time, Nasdaq share numbers will not reflect the one-for-fifteen reverse split that occurred on December 6, 2018. Millendo Therapeutics shares will commence trading on the Nasdaq Capital Market under the new ticker symbol "MLND" and will reflect the one-for-fifteen reverse split in trading on Monday, December 10, 2018.

"The closing of the merger and concurrent financing represents a significant opportunity and milestone for Millendo, as we can now accelerate our work to bring life-changing therapies to market for rare endocrine diseases. We have two differentiated, late-stage endocrine therapies that have been observed to be well tolerated, and we believe address areas of significant unmet need," said Julia C. Owens, Ph.D., President and Chief Executive Officer of Millendo. "In September 2018, we initiated our Phase 2b trial of nevanimibe in CAH, and we look forward to the planned initiation of our pivotal Phase 2b/3 trial of livoletide for PWS in the first quarter of 2019."

Millendo has received total proceeds of $85.4 million, which includes $35.9 million in net cash from OvaScience and $49.5 million from an associated financing. Investors participating in the financing include Great Point Partners, New Enterprise Associates, Frazier Healthcare Partners, and Roche Venture Fund, among others. Jefferies and Leerink Partners acted as Joint Placement Agents for the Millendo financing.

Dr. Owens continued, "Millendo now has a strong balance sheet and sufficient cash runway to support our operations beyond anticipated results from both trials in the first half of 2020 - the three month placebo-controlled portion of our pivotal Phase 2b/3 trial of livoletide in PWS and our Phase 2b clinical trial of nevanimibe in CAH."

In connection with the closing of the merger, OvaScience completed a one-for-fifteen reverse stock split. As a result of the reverse stock split, every fifteen shares of OvaScience common stock outstanding immediately prior to the merger was combined and reclassified into one share of OvaScience common stock. No fractional shares are being issued in connection with the reverse stock split. Instead of fractional shares, cash will be issued based on the closing price of OvaScience common stock on the Nasdaq Capital Market on December 4, 2018.

As a result of the closing of the merger, Millendo stockholders and option holders own or have rights to acquire 63.3% of the combined company, and former OvaScience stockholders will own 16.5% of the combined company. Investors participating in the associated financing will own 20.2% of the combined company.

The combined company will operate under the leadership of Millendo's President and Chief Executive Officer, Julia Owens, and will be headquartered in Ann Arbor, Michigan. The board of directors is comprised of eight members, including Carol Gallagher, Pharm. D., Habib Dable, Mary Lynne Hedley, Ph.D., James Hindman, John Howe, M.D., Carole Nuechterlein, J.D., Julia Owens, Ph.D., and Randall Whitcomb, M.D. Dr. Gallagher is the new Chairman of the board of directors.

About Millendo's Lead Programs

Millendo's lead asset, livoletide, is an unacylated ghrelin analogue being developed for the treatment of Prader-Willi syndrome (PWS), a rare genetic disease characterized by hyperphagia, a chronic unrelenting hunger, that leads to obesity, metabolic dysfunction, reduced quality of life and early mortality. In a randomized, double-blind, placebo-controlled Phase 2 clinical trial in 47 patients with PWS, Millendo observed that administration of livoletide once daily was associated with a clinically meaningful improvement in hyperphagia, as well as a reduction in appetite. Millendo has received orphan drug designation for livoletide from the U.S. Food and Drug Administration, or FDA, and the European Medicines Agency, or EMA, for the treatment of PWS. Millendo expects to initiate a pivotal Phase 2b/3 clinical trial of livoletide in PWS patients in the first quarter of 2019.

Millendo is also developing nevanimibe, an ACAT1 inhibitor for the treatment of two orphan adrenal diseases: classic congenital adrenal hyperplasia (CAH) and endogenous Cushing's syndrome (CS). CAH is a rare, monogenic adrenal disease that requires lifelong treatment with exogenous cortisol, often at high doses, which can make it difficult for physicians to appropriately treat CAH without causing adverse consequences. Nevanimibe has received orphan drug designation from the FDA for the treatment of CAH and CS, as well as from the EMA for the treatment of CAH. In a Phase 2 proof-of-concept clinical trial, Millendo observed nevanimibe to be associated with clear signs of clinical activity in seven of 10 treated patients and was reported to be well tolerated at all dose levels. Millendo initiated the Phase 2b trial of nevanimibe in CAH in September 2018. A Phase 2 trial of nevanimibe for the treatment of patients with CS is ongoing at clinical sites in the United States and United Kingdom.

About Millendo Therapeutics, Inc.

Millendo Therapeutics is a late-stage biopharmaceutical company focused on developing novel treatments for orphan endocrine diseases where current therapies do not exist or are insufficient. The Company's objective is to build a leading endocrine company that creates distinct and transformative treatments for a wide range of endocrine diseases where there is a significant unmet medical need. The Company is currently advancing livoletide for the treatment of Prader-Willi syndrome and nevanimibe

for the treatment of classic congenital adrenal hyperplasia and endogenous Cushing's syndrome. For more information, please visit www.millendo.com.

Cautionary Statement Regarding Forward-Looking Statements

Certain statements contained in this communication regarding matters that are not historical facts, are forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995, known as the PSLRA. These include statements regarding management's intentions, plans, beliefs, expectations or forecasts for the future, and, therefore, you are cautioned not to place undue reliance on them. No forward-looking statement can be guaranteed, and actual results may differ materially from those projected. Millendo undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise, except to the extent required by law. We use words such as "anticipates," "believes," "plans," "expects," "projects," "future," "intends," "may," "will," "should," "could," "estimates," "predicts," "potential," "continue," "guidance," and similar expressions to identify these forward-looking statements that are intended to be covered by the safe-harbor provisions of the PSLRA. Such forward-looking statements are based on our expectations and involve risks and uncertainties; consequently, actual results may differ materially from those expressed or implied in the statements due to a number of factors, including, but not limited to, those described in the documents OvaScience, Inc. has filed with the Securities and Exchange Commission with regard to the merger among OvaScience, Millendo and Orion Merger Sub, Inc., including Millendo's plans to develop and commercialize its product candidates, including livoletide and nevanimibe; the timing of initiation of Millendo's planned clinical trials; the timing of the availability of data from Millendo's clinical trials; the timing of any planned investigational new drug application or new drug application; Millendo's plans to research, develop and commercialize its current and future product candidates; Millendo's ability to successfully collaborate with existing collaborators or enter into new collaborations, and to fulfill its obligations under any such collaboration agreements; the clinical utility, potential benefits and market acceptance of Millendo's product candidates; Millendo's commercialization, marketing and manufacturing capabilities and strategy; Millendo's ability to identify additional products or product candidates with significant commercial potential; developments and projections relating to Millendo's competitors and our industry; the impact of government laws and regulations; Millendo's ability to protect its intellectual property position; and Millendo's estimates regarding future revenue, expenses, capital requirements and need for additional financing following the merger.

New factors emerge from time to time and it is not possible for us to predict all such factors, nor can we assess the impact of each such factor on the business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. Forward-looking statements included in this release are based on information available to Millendo as of the date of this release. Millendo disclaims any obligation to update such forward-looking statements to reflect events or circumstances after the date of this release, except as required by applicable law.

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