



OvaScience and Millendo Therapeutics Announce Merger to Create Leading Rare Endocrine Disease Company

– Transaction to Advance Millendo’s Compelling Pipeline of Late-Stage Programs for Orphan Endocrine Diseases Including Prader-Willi Syndrome –

– Companies to Host Conference Call to Discuss Transaction at 8:30 a.m. ET –

WALTHAM, Mass. and ANN ARBOR, Mich., August 9, 2018 – [OvaScience](#)SM (Nasdaq:OVAS) and privately-held [Millendo Therapeutics, Inc.](#), a clinical-stage biopharmaceutical company focused on developing novel treatments for orphan endocrine diseases, announced today that they have entered into a definitive agreement under which OvaScience will merge with Millendo in an all-stock transaction. The merged company will focus on advancing Millendo’s pipeline of distinct and transformative treatments for orphan endocrine diseases. Upon shareholder approval, the combined company is expected to operate under the name Millendo Therapeutics and trade on the Nasdaq Capital Market under the ticker symbol MLND.

An investor syndicate that includes New Enterprise Associates, Frazier Healthcare Partners, Roche Venture Fund, Innobio managed by Bpifrance, Osage University Partners, Altitude Life Science Ventures, Adams Street Partners, and Longwood Fund has committed to invest \$30 million in the combined company. This financing will help fund the further development of Millendo’s lead assets, livoletide (AZP-531) and nevanimibe (ATR-101), and is expected to close before or concurrently with the completion of the merger. The total cash balance of the combined company following the closing of the merger and the financing is expected to be at least \$70 million.

Millendo is leveraging its deep understanding of recent biological discoveries in endocrinology to build a strong pipeline based on its clinically-validated molecules with differentiated mechanisms. Millendo’s lead asset, livoletide, is an unacylated ghrelin analogue being developed for the treatment of Prader-Willi syndrome, a rare genetic disease characterized by hyperphagia, a chronic unrelenting hunger, that leads to obesity, metabolic dysfunction, reduced quality of life and early mortality. Livoletide demonstrated positive effects in improving hyperphagia and food-seeking behaviors in a Phase 2 study in Prader-Willi syndrome and is expected to advance into a pivotal Phase 2b/3 study 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. Nevanimibe demonstrated positive proof-of-concept and a favorable safety profile in an open-label Phase 2 trial in CAH and is expected to advance into a Phase 2b study in the third quarter of 2018.

“We are excited about the opportunities created by this merger, as it positions us to become a leader in rare endocrine diseases with the funding needed to pursue the potential approval and commercialization of our first-in-class programs,” said Julia Owens, Ph.D., President and Chief Executive Officer of Millendo. “Our objective has always been to deliver meaningful therapies to patients who do not have sufficient treatment options, and with this merger, the compelling clinical data for our

programs, and the initiations of late-stage trials for both livoletide and nevanimibe expected in the months ahead, we are optimistic that we can deliver on this vision.”

“Following an extensive and thorough review of strategic alternatives, we believe that this merger with Millendo is the best path forward and has the potential to deliver significant and immediate value to OvaScience shareholders,” said Christopher Kroeger, M.D., Chief Executive Officer of OvaScience. “We are certain that the strength and dedication of the Millendo leadership team provides our combined company with the capabilities to develop new and much-needed therapies for patients with orphan endocrine diseases.”

About the Proposed Transaction

On a pro forma basis and based upon the number of shares of OvaScience common stock to be issued in the merger, current OvaScience shareholders will own approximately 20% of the combined company and current Millendo investors will own approximately 80% of the combined company (before accounting for the additional financing transaction). The actual allocation will be subject to adjustment based on OvaScience’s net cash balance at the time of closing and the amount of any additional financing consummated by Millendo at or before the closing of the merger. The transaction has been approved by the board of directors of both companies. The merger is expected to close in the fourth quarter of 2018, subject to the approval of OvaScience shareholders at a special shareholder meeting, as well as other customary conditions.

Ladenburg Thalmann & Co. Inc. is acting as financial advisor to OvaScience for the transaction and Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. is serving as legal counsel to OvaScience. Cooley LLP is serving as legal counsel to Millendo.

Management and Organization

The combined company will be led by Julia Owens, Ph.D., Millendo Chief Executive Officer and President, and will be headquartered in Ann Arbor, Michigan. The board of directors is expected to be composed of seven members, including current Millendo board members Carol Gallagher, Pharm. D., Mary Lynne Hedley, Ph.D., Jim Hindman, Carole Nuechterlein, J.D., Julia Owens, Ph.D., and Randy Whitcomb, M.D., and current OvaScience board member, John Howe, M.D.

Conference Call

OvaScience and Millendo will host a conference call at 8:30 a.m. ET on August 9, 2018, to discuss the proposed transaction. The conference call may be accessed by dialing (877) 930-8299 for U.S. callers and (253) 336-8765 for international callers at least five minutes prior to the start of the call and providing the passcode 8899557. Additionally, the live, listen-only webcast of the conference call can be accessed by visiting the investors section of the OvaScience website at www.ovascience.com, or the press release section of the Millendo website at www.millendo.com. A replay of the webcast can be accessed at the same location beginning two hours following completion of the call and will be available for 90 days.

About OvaScience, Inc.

OvaScience (Nasdaq:OVAS) is focused on developing novel treatments for women and couples struggling with infertility. These treatments are based on a proprietary technology platform that leverages the breakthrough discovery of egg precursor cells – immature egg cells found within the outer ovarian cortex. In March 2018, the Company announced preliminary blinded data for its Phase 1 trial of OvaPrime for women with primary ovarian insufficiency and poor ovarian response. This trial was not expected to result in strong signals on secondary endpoints. The Company has since completed

additional preclinical studies and based on results from these studies, has scaled back investment in its research and development efforts to focus on evaluating strategic alternatives. For more information, please visit www.ovascience.com.

About Millendo Therapeutics, Inc.

Millendo Therapeutics is focused on developing novel treatments for orphan endocrine diseases. The Company's objective is to build a leading endocrine company that creates distinct and transformative treatments for a wide range of 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.

No Offer or Solicitation:

This communication shall not constitute an offer to sell or the solicitation of an offer to sell or the solicitation of an offer to buy any securities, nor shall there be any sale of securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. No public offer of securities shall be made except by means of a prospectus meeting the requirements of Section 10 of the Securities Act of 1933, as amended.

Important Additional Information Will be Filed with the SEC

In connection with the proposed transaction between OvaScience and Millendo, OvaScience intends to file relevant materials with the SEC, including a registration statement that will contain a proxy statement and prospectus. OVASCIENCE URGES INVESTORS AND STOCKHOLDERS TO READ THESE MATERIALS CAREFULLY AND IN THEIR ENTIRETY WHEN THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION ABOUT OVASCIENCE, THE PROPOSED TRANSACTION AND RELATED MATTERS. Investors and shareholders will be able to obtain free copies of the proxy statement, prospectus and other documents filed by OvaScience with the SEC (when they become available) through the website maintained by the SEC at www.sec.gov. In addition, investors and shareholders will be able to obtain free copies of the proxy statement, prospectus and other documents filed by OvaScience with the SEC by contacting Investor Relations by mail at OvaScience, Inc., Attn: Investor Relations, 9 Fourth Avenue, Waltham, Massachusetts 02451. Investors and stockholders are urged to read the proxy statement, prospectus and the other relevant materials when they become available before making any voting or investment decision with respect to the proposed transaction.

Participants in the Solicitation

OvaScience and Millendo, and each of their respective directors and executive officers and certain of their other members of management and employees, may be deemed to be participants in the solicitation of proxies in connection with the proposed transaction. Information about OvaScience's directors and executive officers is included in OvaScience's Annual Report on Form 10-K for the year ended December 31, 2017, filed with the SEC on March 15, 2018, and the proxy statement for OvaScience's 2018 annual meeting of stockholders, filed with the SEC on April 30, 2018. Additional information regarding these persons and their interests in the transaction will be included in the proxy statement relating to the transaction when it is filed with the SEC. These documents can be obtained free of charge from the sources indicated above.

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 and 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. OvaScience and Millendo undertake 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, risks relating to the completion of the merger, including the need for stockholder approval and the satisfaction of closing conditions; the anticipated financing to be completed prior to or concurrently with the closing of the merger; the cash balances of the combined company following the closing of the merger and the financing; the ability of OvaScience to remain listed on the Nasdaq Capital Market; and expected restructuring-related cash outlays, including the timing and amount of those outlays. Risks and uncertainties related to Millendo that may cause actual results to differ materially from those expressed or implied in any forward-looking statement include, but are not limited to: 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 integrate Alizé Pharma SAS and its personnel; 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 proposed transaction.

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. These risks, as well as other risks associated with the combination, will be more fully discussed in the proxy statement/prospectus that will be included in the registration statement that will be filed with the SEC in connection with the proposed transaction. Additional risks and uncertainties are identified and discussed in the "Risk Factors" section of OvaScience's Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and other documents filed from time to time with the SEC. Forward-looking statements included in this release are based on information available to OvaScience and Millendo as of the date of this release. Neither OvaScience nor Millendo undertakes any obligation to

update such forward- looking statements to reflect events or circumstances after the date of this release.

OvaScience Media and Investor Contact:

Jonathan Gillis
OvaScience, Inc.
617-420-8639
jgillis@ovascience.com

Millendo Media Contact:

Cammy Duong
MacDougall Biomedical Communications
781-591-3443
cduong@macbiocom.com

Millendo Investor Contact:

Stephen Rutman
Stern Investor Relations
212-362-1200
stephen@sternir.com

###