Regulus Therapeutics Announces FDA Removal of Partial Clinical Hold for Multiple Ascending Dose Study of RGLS4326

Regulus Plans to Re-Initiate Clinical Studies in Q1 2020 Milestone for Second Tranche of Private Financing of Approximately \$25.1 Million Achieved

LA JOLLA, Calif., Dec. 16, 2019 /PRNewswire/ -- Regulus Therapeutics Inc. (Nasdaq: RGLS), a biopharmaceutical company focused on the discovery and development of innovative medicines targeting microRNAs, today announced the U.S. Food and Drug Administration ("FDA") has lifted the Partial Clinical Hold on the Company's Phase 1 multiple ascending dose clinical study of RGLS4326 for the treatment of autosomal dominant polycystic kidney disease (ADPKD) (the "MAD study"). The Company plans to recommence the MAD study in the first quarter of 2020. With the Partial Clinical Hold on the MAD study lifted, the Company is also planning to enroll patients with ADPKD in an additional short-term dosing study in the second half of 2020 to evaluate RGLS4326 for safety, pharmacokinetics, and biomarkers of pharmacodynamic activity as part of its comprehensive Phase 1b program.

As previously disclosed, FDA outlined the Partial Clinical Hold in two parts: certain requirements to re-initiate the MAD study and additional requirements to support studies of extended duration. In November 2019, the Company provided its complete response to the Partial Clinical Hold in order to recommence the MAD study. The FDA subsequently notified the Company of its decision to lift the Partial Clinical Hold on the MAD study. Information from the clinical studies together with information from additional nonclinical studies will be used to address the requirements to support studies of extended duration.

"We appreciate the productive dialog with FDA throughout this process," stated Jay Hagan, CEO of Regulus. "Next year will be pivotal for the Company in generating important safety, PK, and PD data on RGLS4326, as well as advancing other programs in our pipeline."

As outlined in the May 2019 securities purchase agreement among the Company and the purchasers named therein (the "Purchase Agreement"), this announcement, which follows the unanimous resolution of the Company's Board of Directors to recommence the MAD study, triggers the second closing under the Purchase Agreement (the "Milestone Closing"). At the Milestone Closing, the purchasers will purchase, in a private placement transaction, shares of non-voting convertible preferred stock and accompanying warrants to purchase shares of Common Stock having an aggregate purchase price of approximately \$25.1 million. The additional non-voting preferred stock will be sold at a price per share of \$10.80 in the event the volume-weighted average price per share of Common Stock on Nasdaq ("VWAP") during the five full trading days following this announcement (the "5 Day VWAP") is at least \$1.08. In the event the 5 Day is less than \$1.08, the price per share of the additional non-voting preferred stock will be the 5 Day VWAP multiplied by 10 (each share of non-voting preferred will be convertible into 10 shares of common stock). If the 5 Day VWAP is less than \$0.50, the Milestone Closing will not occur. The Company expects the Milestone Closing to be completed later this month. The Company believes the proceeds from the Milestone Closing, along with its existing cash, will be sufficient to fund currently planned operations into mid-2021.

This press release does not constitute an offer to sell or the solicitation of an offer to buy the securities, nor shall there be any sale of the securities in any state in which such offer, solicitation or sale would be unlawful prior to the registration or qualification under the securities laws of such state.

As the Company also announced in May 2019 after concluding an amendment (the "Amendment") of its term loan with Oxford Finance LLC, upon the Milestone Closing, the Company will receive an additional twelve-month period of interest-only payments extending the interest-only period to April 2021.

About ADPKD

ADPKD, caused by the mutations in the PKD1 or PKD2 genes, is among the most common human monogenic disorders and a leading cause of end-stage renal disease. The disease is characterized by the development of multiple fluid filled cysts primarily in the kidneys, and to a lesser extent in the liver and other organs. Excessive kidney cyst cell proliferation, a central pathological feature, ultimately leads to end-stage renal disease in approximately 50% of ADPKD patients by age 60.

About RGLS4326

RGLS4326 is a novel oligonucleotide designed to inhibit miR-17 and designed to preferentially target the kidney. Preclinical studies with RGLS4326 have demonstrated direct regulation of PKD1 and PKD2 in human ADPKD cyst cells, a reduction in kidney cyst formation, improved kidney weight/body weight ratio, decreased cyst cell proliferation, and preserved kidney function in mouse models of ADPKD. The RGLS4326 IND is currently on a

Partial Clinical Hold for long-term chronic dosing by the U.S. Food and Drug Administration.

About Regulus

Regulus Therapeutics Inc. (Nasdaq: RGLS) is a biopharmaceutical company focused on the discovery and development of innovative medicines targeting microRNAs. Regulus has leveraged its oligonucleotide drug discovery and development expertise to develop a pipeline complemented by a rich intellectual property estate in the microRNA field. Regulus maintains its corporate headquarters in La Jolla, CA.

Forward-Looking Statements

Statements contained in this press release regarding matters that are not historical facts are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, including statements associated with the completion of preclinical and clinical activities concerning the RGLS4326 program, including statements regarding the sufficiency of the data resulting from the ongoing or planned preclinical studies required to recommence clinical studies for long-term chronic dosing and the timing of preclinical and clinical activities and including statements concerning the timing and closing of the private equity financing. Because such statements are subject to risks and uncertainties, actual results may differ materially from those expressed or implied by such forward-looking statements. Words such as "believes," "anticipates," "plans," "expects," "intends," "will," "goal," "potential" and similar expressions are intended to identify forward-looking statements. These forward-looking statements are based upon Regulus' current expectations and involve assumptions that may never materialize or may prove to be incorrect. Actual results and the timing of events could differ materially from those anticipated in such forward-looking statements as a result of various risks and uncertainties, which include, without limitation, risks associated with the process of discovering, developing and commercializing drugs that are safe and effective for use as human therapeutics and in the endeavor of building a business around such drugs, and feedback from the FDA. These and other risks are described in additional detail in Regulus' filings with the Securities and Exchange Commission. All forward-looking statements contained in this press release speak only as of the date on which they were made. Regulus undertakes no obligation to update such statements to reflect events that occur or circumstances that exist after the date on which they were made.

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For further information: Investor Relations Contact: Cris Calsada, Chief Financial Officer, 858-202-6376, ccalsada@regulusrx.com

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