Aprea Therapeutics Highlights Positive Emerging Clinical Activity for WEE1 Inhibitor, APR-1051, with a Confirmed Partial Response in the Ongoing Phase 1 ACESOT-1051 Trial

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- *Confirmed partial response at 220 mg indicates anti-tumor activity of APR-1051 in biomarker-defined cancers*
- *Early clinical data suggest the potential of APR-1051 as a best-in-class WEE1 inhibitor*
- *Emerging clinical proof of concept responses without class-limiting toxicity to date support Aprea's development strategy of differentiated WEE1 inhibition with an improved therapeutic index*
- *A further update from the trial is expected in the second quarter of 2026*

DOYLESTOWN, Pa., March 30, 2026 (GLOBE NEWSWIRE) -- Aprea Therapeutics, Inc. (Nasdaq: APRE) ("Aprea", or the "Company"), a clinical-stage precision medicine oncology company focused on the discovery and development of targeted therapies for patients with biomarker-defined cancers, today announced the confirmation of a partial response (PR) in its ongoing ACESOT-1051 trial evaluating APR-1051, a potent and selective WEE1 kinase inhibitor.

The confirmed PR was observed in a patient with PPP2R1A-mutated endometrial cancer who is currently being treated at the 220 mg once daily dose level. Aprea announced on February 18, 2026 that, at their first imaging assessment, this patient achieved a 50% reduction in target lesion size (meeting RECIST criteria for partial response) as well as a reduction in CA-125 levels. This response was subsequently confirmed at the second image assessment, with an additional 9.5% reduction in target lesion size, and a reduction in CA-125 to 40.2U/ml (from 362 U/mL at baseline).

ACESOT-1051 is a biomarker focused Phase 1 trial designed to evaluate the safety, tolerability, pharmacokinetics, and preliminary anti-tumor activity of APR-1051 in patients with advanced solid tumors harboring cancer-associated genetic alterations. A total of 24 patients have been treated to date, at doses ranging from 10 mg to 220 mg once daily. Two patients have achieved partial responses, both with endometrial cancers harboring PPP2R1A mutations. One of these responses has been confirmed, as described above. Both patients remain on treatment.

Five other patients in ACESOT-1051 have achieved a best overall response of stable disease, including patients with HPV+ head and neck squamous cell carcinoma (HNSCC), colorectal and endometrial cancers with relevant genomic alternations. APR-1051 has been generally safe and well tolerated with the most common adverse events reported as Grade 1 or 2, primarily consisting of nausea and fatigue.

"The data emerging from the ACESOT-1051 trial continue to support the clinical potential of APR-1051, with confirmation of a partial response in the 220 mg cohort indicating evidence of sustained anti-tumor activity," said Eugene Kennedy, MD, Chief Medical Advisor at Aprea. "APR-1051 appears to be generally well-tolerated with an encouraging therapeutic window and overall, these findings strengthen our confidence in the ability of this candidate to successfully target WEE1 in genetically defined cancers, where patients face significant unmet need."

Dose escalation is ongoing, with plans to advance to Dose Level 9 (300 mg once daily) in the second quarter of 2026. In parallel, the company plans to enroll additional patients as specified in the protocol based on the understanding that their tumor types or specific mutations gives them an increased probability of responding to this class of potential therapeutics. This includes patients with uterine serous carcinoma (a subset of endometrial), colorectal and HPV+ tumors. For more information on ACESOT-1051, refer to ClinicalTrials.gov NCT06260514.

About Aprea

Aprea is a clinical-stage precision medicine oncology company focused on the discovery and development of targeted therapies for patients with biomarker-defined cancers. The Company is pioneering a new approach to treat cancer by exploiting vulnerabilities associated with cancer cell mutations. This approach was developed to kill tumors while minimizing the effect on normal, healthy cells. Aprea's technology has potential applications across multiple cancer types, enabling it to target a range of tumors, including ovarian, endometrial, colorectal and head and neck squamous cell carcinoma. The company's lead programs are APR-1051, an oral, small-molecule inhibitor of WEE1 kinase, and ATRN-119, a small molecule ATR inhibitor, both in clinical development for solid tumor indications. For more information, please visit the company website at www.aprea.com.

The Company may use, and intends to use, its investor relations website at https://ir.aprea.com/ as a means of disclosing material nonpublic information and for complying with its disclosure obligations under Regulation FD.

Forward-Looking Statement

Certain information contained in this press release includes "forward-looking statements", within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended related to our study analyses, clinical trials, regulatory submissions, and projected cash position. We may, in some cases use terms such as "future," "predicts," "believes," "potential," "continue," "anticipates," "estimates," "expects," "plans," "intends," "targeting," "confidence," "may," "could," "might," "likely," "will," "should" or other words that convey uncertainty of the future events or outcomes to identify these forward-looking statements. Our forward-looking statements are based on current beliefs and expectations of our management team and on information currently available to management that involve risks, potential changes in circumstances, assumptions, and uncertainties. All statements contained in this press release other than statements of historical fact are forward-looking statements, including statements regarding our ability to develop, commercialize, and achieve market acceptance of our current and planned products and services, our research and development efforts, including timing considerations and other matters regarding our business strategies, use of capital, results of operations and financial position, and plans and objectives for future operations. Any or all of the forward-looking statements may turn out to be wrong or be affected by inaccurate assumptions we might make or by known or unknown risks and uncertainties. These forward-looking statements are subject to risks and uncertainties including, without limitation, risks related to the success, timing, and cost of our ongoing clinical trials and anticipated clinical trials for our current product candidates, including statements regarding the timing of initiation, pace of enrollment and completion of the trials (including our ability to fully fund our disclosed clinical trials, which assumes no material changes to our currently projected expenses), futility analyses, presentations at conferences and data reported in an abstract, and receipt of interim or preliminary results (including, without limitation, any preclinical results or data), which are not necessarily indicative of the final results of our ongoing clinical trials, our understanding of product candidates mechanisms of action and interpretation of preclinical and early clinical results from its clinical development programs, and our ability to predict clinical outcomes based on such preclinical and early clinical results, our ability to continue as a going concern, and the other risks, uncertainties, and other factors described under "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and elsewhere in the documents we file with the U.S. Securities and Exchange Commission. For all these reasons, actual results and developments could be materially different from those expressed in or implied by our forward-looking statements. You are cautioned not to place undue reliance on these forward-looking statements, which are made only as of the date of this press release. We undertake no obligation to update such forward-looking statements for any reason, except as required by law.

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