Aprea Therapeutics Announces Interim Results From the Ongoing First-in-human Phase 1 Study of WEE1 Inhibitor APR-1051 in Patients with Advanced Solid Tumors (ACESOT-1051) at the 38th EORTC-NCI-AACR Symposium in Barcelona

November 20, 2026

Safety profile to date with continuous daily dosing supports continued dose optimization and clinical development

Pharmacodynamic data demonstrate WEE1 target engagement across multiple doses, pharmacokinetics support once-daily administration

Planned expansion into focused cohorts in uterine serous carcinoma and cyclin E-overexpressing platinum-resistant ovarian cancer, where WEE1 inhibition may be most therapeutically relevant

DOYLESTOWN, Pa., Nov. 20, 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 updated results from its ongoing Phase 1 ACESOT-1051 trial of APR-1051, an investigational, oral, selective WEE1 inhibitor. Interim results will be presented today in a Plenary Oral Session at the 38th EORTC-NCI-AACR Symposium on Molecular Targets and Cancer Therapeutics in Barcelona, Spain, by Timothy A. Yap, MBBS, PhD, FRCP, of The University of Texas MD Anderson Cancer Center, the lead investigator of the study. As of the November 1, 2026 cut off date, 56 patients had received APR-1051 across all dose levels. The interim dataset includes one confirmed (on treatment for more than 10 months at cutoff) and one unconfirmed RECIST 1.1 partial response in patients with PPP2R1A-mutated uterine cancers and five patients with stable disease lasting more than four months. Pharmacodynamic evidence of WEE1 target engagement across multiple dose levels, together with the safety profile and longer follow-up on previously reported clinical activity, support continued dose optimization and continuous once-daily administration. Aprea plans to enroll at least 50 patients with uterine serous carcinoma (USC) or cyclin E-overexpressing, platinum-resistant ovarian cancer (PROC), as dose escalation and backfill expansion enrollment continue, with completion of dose escalation and backfill expansion enrollment expected in the second quarter of 2027.

Updated ACESOT-1051 findings

The presentation, "Interim Results From the First-in-human Phase 1 Study of WEE1 Inhibitor APR-1051 in Patients with Advanced Solid Tumors (ACESOT-1051)," includes the following findings:

- **Clinical activity and durability:** Out of the 56 patients who enrolled in this dose escalation trial (including those patients treated at doses believed to be subtherapeutic), 43 are evaluable for response. Two patients with PPP2R1A-mutated uterine cancers achieved RECIST 1.1 partial responses, one confirmed and one unconfirmed. The confirmed response, in a patient with uterine carcinosarcoma treated at 220 mg, was ongoing with treatment beyond 10 months at the time of data cutoff. Sixteen patients had a best overall response of stable disease, five of which had a duration of 4 months or longer. Thirteen patients were still awaiting their initial on-treatment imaging studies at the time of data cutoff.
- **WEE1 target engagement:** Pharmacodynamic data (PD) from paired skin punch biopsies were stained by IHC for phosphorylation of CDK1-Y15, an established PD marker of WEE1 target engagement. Reductions of at least 50% in pCDK1-Y15 from baseline were observed in 21 of 25 evaluable patients (84%) across multiple dose levels.
- **Initial Safety and tolerability:** One dose-limiting toxicity (DLT) was observed among 56 treated patients. The DLT was elevation of AST and ALT without elevation in bilirubin in blood tests in a patient with known liver metastases treated at the 50 mg dose level. Grade 3/4 neutrophil count decrease was reported in 4 patients (7%) (1 Grade 3, 3 Grade 4, one of which was serious) all at the 300 mg dose level, with no reported cases of febrile neutropenia. Two patients (4%) experienced Grade 3 pneumonitis, both reported as serious. Other Grade ≥3 treatment-related adverse events included fatigue (5%), lymphocyte count decrease (4%), dyspnea (2%) and diarrhea (2%). The most common all grade treatment-related adverse events were nausea (41%), fatigue (25%), diarrhea (14%) and vomiting (14%).
- **Pharmacokinetics:** APR-1051 exposure increased with once-daily dosing through 300 mg, with an approximately 18-hour median half-life supporting once-daily dosing. Dose escalation has been modified to include 250 mg and 350 mg dose levels, and Part 1 now provides for up to 110 patients; previously disclosed dose levels of 400 mg and 500 mg are under evaluation.

"These interim results reinforce our focus on advancing APR-1051 in biomarker selected cancers," said Oren Gilad, Ph.D., President and Chief Executive Officer of Aprea. "The ongoing confirmed partial response, additional unconfirmed partial response,

and prolonged stable disease observed in multiple heavily pre-treated patients provide encouraging early evidence of single-agent clinical activity, supported by WEE1 target engagement and pharmacokinetics compatible with continuous once-daily dosing. Our strategy is to transition from a broad, biomarker-enriched Phase 1 study toward more focused expansion cohorts in patient populations most likely to benefit from APR-1051. Our goal is to evaluate whether APR-1051 can produce clinically meaningful and durable responses in a well-defined patient population with significant unmet medical need."

Expanded enrollment focused on biologically selected cancers

Aprea is refining enrollment to evaluate APR-1051 in populations that may be particularly sensitive to WEE1 inhibition. The Company is working with a diagnostics partner to develop an immunohistochemistry (IHC) assay for cyclin E overexpression, to support patient identification and enrollment of patients with cyclin E-overexpressing PROC. The Company is also expanding the trial to more than 10 clinical sites, from the nine active sites previously disclosed. This effort complements continued evaluation of tumors with CCNE1, CCNE2 or FBXW7 alterations, while an emerging clinical activity signal in PPP2R1A-mutated uterine cancers provides an additional area for evaluation as enrollment expands.

"Patients with advanced uterine and platinum-resistant ovarian cancers need additional treatment options after progression on available therapies," said Eugene Kennedy, MD, Chief Medical Advisor at Aprea. "The observed target engagement and prolonged treatment duration in a patient with a confirmed response provide a rationale to continue evaluating APR-1051 in carefully selected patients. Expanding enrollment in biologically selected populations will help us better characterize clinical activity, assess the consistency of responses and further evaluate tolerability. These data will be important for optimizing dose selection and informing subsequent development."

ACESOT-1051 Trial Design

ACESOT-1051 is a multicenter, open-label Phase 1 study evaluating oral, single-agent APR-1051 administered once daily in 28-day cycles. Part 1 includes dose escalation and backfill expansion of up to 110 patients, using accelerated titration at lower dose levels followed by a Bayesian optimal interval (BOIN) design. Backfill enrollment allows additional patients to be evaluated at dose levels that have cleared safety review. Part 2 is a dose selection optimization stage of up to 80 patients, who will be randomized 1:1 to two selected doses to determine the recommended Phase 2 dose (RP2D).

The primary objectives are to characterize safety and dose-limiting toxicities, determine the maximum tolerated or maximum administered dose, and establish the RP2D. Secondary objectives include pharmacokinetics and preliminary antitumor activity assessed using Response Evaluation Criteria in Solid Tumors (RECIST) or Prostate Cancer Working Group 3 (PCWG3) criteria, as applicable.

For more information on ACESOT-1051, refer to ClinicalTrials.gov identifier NCT06260514.

About APR-1051

APR-1051 is an investigational, orally bioavailable, selective small-molecule inhibitor of WEE1, a kinase that regulates cell cycle checkpoints and helps cancer cells respond to DNA damage. APR-1051 was designed to minimize off-target inhibition of the PLK family of kinases, with the goal of improving its therapeutic profile. Its potential differentiation remains under clinical evaluation.

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 pursuing an approach to treating cancer that seeks to exploit vulnerabilities associated with cancer cell mutations. This approach is designed to kill tumor cells while minimizing the effect on normal, healthy cells. Aprea believes its technology has potential applications across multiple cancer types, including ovarian, endometrial, colorectal and head and neck squamous cell carcinoma. The Company's lead program is APR-1051, an oral, small molecule inhibitor of WEE1 kinase, currently in a Phase 1 clinical trial. The Company's second clinical-stage product candidate, ATRN-119, is a small molecule ATR inhibitor for which the Company has completed a Phase 1 dose-escalation study and is exploring combination approaches. For more information, please visit the Company's 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 Statements

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, and the Private Securities Litigation Reform Act of 1995, related to our study analyses, clinical trials, regulatory submissions, development plans 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 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, and 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 product candidates, our research and

development efforts, including timing considerations and other matters regarding our business strategies, use of capital, results of operations and financial position, projected cash runway, plans and objectives for future operations, the timing, progress, enrollment and completion of our ongoing and planned clinical trials, the timing of expected clinical data updates and medical meeting presentations, the potential expansion of ACESOT-1051, the planned addition of clinical sites and dose levels, the development of a companion IHC assay, the potential development of APR-1051 in single-agent and combination settings, the potential further development of ATRN-119, the scope and duration of our intellectual property protection, and the potential advancement of our early-stage programs. 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 and anticipated clinical trials for our current product candidates, including the timing of initiation, pace of enrollment and completion of trials, our ability to fully fund our disclosed clinical trials, which assumes no material changes to our currently projected expenses, our need for substantial additional funding, which may not be available on acceptable terms or at all, the receipt and timing of interim or preliminary results, which are not necessarily indicative of final results and have not been fully source verified, the occurrence of serious or unexpected adverse events, including pneumonitis and neutropenia, that may require dose modifications or affect further development, our understanding of product candidate mechanisms of action and interpretation of preclinical and early clinical results from our clinical development programs, our ability to predict clinical outcomes based on such preclinical and early clinical results, our ability to successfully develop and validate a diagnostic assay with third parties, the timing and outcome of regulatory interactions, our ability to regain and maintain compliance with The Nasdaq Stock Market continued listing requirements, and the other risks, uncertainties and 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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