Aprea Therapeutics Establishes Recommended Phase 2 Dose (RP2D) for ATRN-119, Considering Combination Therapies

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- ATRN-119 (ATR Inhibitor): RP2D of 1,100 mg once daily identified in ongoing ABOYA-119 dose-escalation study
- Further ATRN-119 monotherapy enrollment paused with strategic focus on high-value combination
- Company is prioritizing its lead program, WEE1 kinase inhibitor APR-1051

DOYLESTOWN, Pa., Oct. 15, 2025 (GLOBE NEWSWIRE) -- Aprea Therapeutics, Inc. (Nasdaq: APRE) ("Aprea", or the "Company"), a clinical-stage biopharmaceutical company developing innovative treatments that exploit specific cancer cell vulnerabilities while minimizing damage to healthy cells, today announced that it has determined the recommended Phase 2 dose (RP2D) of 1,100 mg once daily for ATRN-119, its oral ATR inhibitor in the monotherapy arm of the ongoing ABOYA-119 Phase 1/2a dose-escalation study, in patients with advanced solid tumors.

ATR program

Building on the completion of dose escalation and supported by new preclinical data suggesting potential synergistic anti-tumor effects, Aprea is considering further ATRN-119 development in combination approaches that could expand its therapeutic potential. The Company believes ATRN-119's mechanism of action, favorable safety profile, and pharmacologic characteristics make it an ideal candidate for combination with DNA-damaging agents, including radiation therapy, antibody-drug conjugates and immune checkpoint inhibitors.

As part of this strategic focus, Aprea is pausing further enrollment in both once daily and twice daily monotherapy dosing arms of ABOYA-119. Importantly, patients currently being dosed with ATRN-119 as part of this ongoing clinical trial will continue to have access to therapy without interruption.

The Company is currently in discussions with leading academic centers to explore combining ATRN-119 with radiation in patients with HPV+ head and neck cancer, an indication where synergistic anti-tumor effects have been observed in preclinical data. Additional investigator-led studies evaluating ATRN-119 in combination with an I/O agent and antibody-drug conjugates, are also being explored, based on preclinical evidence that ATR inhibition may enhance anti-tumor immune responses.

Phase 1 monotherapy data in the ABOYA-119 dose-escalation study, ATRN-119 demonstrated:

- Favorable tolerability profile with manageable adverse events at the RP2D of 1100 mg once daily
- Durable disease stabilization in heavily pretreated patients across multiple tumor types
- Dose-proportional pharmacokinetics supporting once-daily dosing
- Preliminary signs of clinical activity in biomarker-selected populations

"We are very pleased to have identified the recommended monotherapy Phase 2 dose for ATRN-119, which is an important step in our transition to the next stage of development," said Oren Gilad, Ph.D., President and Chief Executive Officer of Aprea. "Based on the growing body of evidence supporting ATR inhibition as a potent sensitizer to DNA-damaging therapies and immunotherapy, we are now considering ATRN-119 in combination approaches that we believe could expand its clinical impact. We believe this candidate's mechanism, safety profile, and pharmacologic characteristics make it a compelling candidate for pairing with other anti-cancer therapies, including radiation or checkpoint inhibitors, where synergistic anti-tumor effects have been demonstrated preclinically."

A poster titled **Updated data from ABOYA-119: A phase 1/2a trial of ATRN-119, a novel macrocyclic ATR inhibitor, in patients with advanced solid tumors harboring DNA damage** will be presented at the forthcoming AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics on Friday, October 24, 2025.

WEE1 Program

Aprea continues to advance its lead program, WEE1 kinase inhibitor APR-1051 at full speed. The ongoing Phase 1, first-in-human study (NCT06260514) is actively enrolling patients at three leading clinical sites in the United States. To date, patients with advanced solid tumors harboring specific cancer-associated gene alterations have been treated with APR-1051 at doses up to 150 mg once daily. Early signals of clinical benefit, including disease stabilization in multiple patients, have been observed, supporting continued dose escalation and further clinical evaluation of APR-1051. The Company expects to report clinical data from this study later this month at the AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics and is planning to further explore safety, pharmacokinetics, and signals of antitumor activity.

About Aprea
Aprea's mission is to develop novel cancer therapies that target cancer cells directly, while sparing healthy ones. By exploiting unique vulnerabilities in cancer cell mutations, this approach is designed to eradicate tumors while minimizing harm to normal tissues, thereby reducing the risk of toxicity often associated with conventional chemotherapy and other treatments. Aprea's clinical programs include APR-1051, an oral, small-molecule inhibitor of WEE1 kinase, and ATRN-119, a macrocyclic small molecule ATR inhibitor, both currently in 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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