UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

May 13, 2026
Date of Report (Date of earliest event reported)

Aprea Therapeutics, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**001-39069**	**84-2246769**
(State or other jurisdiction of incorporation)	(Commission File Number)	(IRS Employer Identification No.)

3805 Old Easton Road **Doylestown, PA**	**18902**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(215) 948-4119**

(Former name or former address, if changed since last report): Not applicable

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Trading Symbol(s)**	**Name of each exchange on which registered**
Common stock, par value $0.001 per share	APRE	The Nasdaq Stock Market LLC

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 2.02 Results of Operations and Financial Condition.

On May 13, 2026, Aprea Therapeutics, Inc. (the "Company") issued a press release announcing its financial results for the three months ended March 31, 2026, and provided an update on the Company's operations for the same period. The Company is furnishing a copy of the press release, which is attached hereto as Exhibit 99.1.

In accordance with General Instruction B.2 of Form 8-K, the information included in this Item 2.02, including Exhibit 99.1 hereto, shall not be deemed "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference into any filing made by the Company under the Exchange Act or Securities Act of 1933, as amended, except as shall be expressly set forth by specific reference in such a filing.

Item 8.01 Other Events.

On May 13, 2026, the Company updated its corporate presentation slide deck. A copy of the corporate presentation slide deck is filed as Exhibit 99.2 hereto and incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit Number	Description
99.1	Press release issued by Aprea Therapeutics, Inc. dated May 13, 2026.
99.2	Corporate Presentation (May 2026).
104	Cover Page Interactive Data File (embedded within the inline XBRL document).

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Aprea Therapeutics, Inc.

Dated: May 13, 2026

By: /s/ Oren Gilad
Name: Oren Gilad, Ph.D.
Title: President and Chief Executive Officer

Exhibit 99.1

Aprea Therapeutics Reports First Quarter 2026 Financial Results and Provides a Corporate Update

- *Oversubscribed $30 million private placement closed, with proceeds expected to support ongoing development of APR-1051*
- *Two partial responses observed with continued encouraging tolerability in the ongoing Phase 1 dose escalation ACESOT-1051 trial of WEE1 inhibitor APR-1051*
- *Additional clinical data from ACESOT-1051 to be provided at the ASCO 2026 Annual Meeting on May 30, 2026*
- *$46.5 million in cash and cash equivalents as of March 31, 2026, with anticipated cash runway into Q1 2028*

DOYLESTOWN, PA, May 13, 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 reported financial results for the first quarter ended March 31, 2026, and provided a business update.

"We are very encouraged by the progress made across both our clinical and corporate priorities during the first quarter of 2026, including two partial responses observed in the ACESOT-1051 trial evaluating APR-1051. One of these has been confirmed at a second imaging assessment and this patient remains on study," said Oren Gilad, Ph.D., President and Chief Executive Officer of Aprea. "These efficacy results, coupled with the encouraging tolerability, support our precision medicine strategy and reinforce the potential of targeted therapies for patients who have limited treatment options. We look forward to presenting an update from ACESOT-1051 at ASCO 2026 and providing additional insight into APR-1051's emerging clinical profile. The recent $30 million private placement significantly strengthens our balance sheet and enables us to meaningfully expand patient enrollment, generating the clinical data needed to inform the future clinical path for APR-1051. We are grateful for the trust and support of both new and existing investors, whose participation reflects confidence in our development strategy and the potential of our programs."

Key Business Updates and Upcoming Key Milestones

ACESOT-1051: A Biomarker Focused, Phase 1 Trial of Oral WEE1 inhibitor, APR-1051

- APR-1051 is a potent and selective, oral small molecule WEE1 inhibitor designed to potentially address therapeutic window limitations observed with earlier WEE1 programs. APR-1051 is being evaluated as monotherapy in uterine serous carcinoma patients regardless of mutation, cyclin E-overexpressing platinum-resistant ovarian cancer, advanced solid tumors harboring CCNE1, CCNE2, PPP2R1A or FBXW7 mutations, colorectal cancer harboring KRAS & TP53 mutations and HPV+ head and neck squamous cell carcinoma. These patient populations are associated with poor prognosis and limited effective treatment options.
- To date, two patients in ACESOT-1051 have achieved partial responses ("PR"). One uterine carcinosarcoma patient with PPP2R1A-mutation treated at the 220 mg dose level achieved a 50% reduction in target lesion size per RECIST v1.1 criteria and a significant reduction in CA-125 levels at the first imaging assessment. At the confirmatory, second imaging assessment, an additional 9.5% reduction in target lesion size was observed, along with a further decline in CA-125 to 40.2 U/mL

from 362 U/mL at baseline. This patient remains on study with an ongoing PR. There has also been an unconfirmed PR in a second patient with PPP2R1A-mutated uterine serous carcinoma, treated at the 150 mg dose level.

- A total of 28 patients have been treated in ACESOT-1051 to date at doses ranging from 10 mg to 300 mg once daily. Six patients have achieved best overall response of stable disease, including patients with colorectal cancer, HPV+ head and neck squamous cell carcinoma, and endometrial cancer.
- Dose escalation is ongoing with enrollment currently underway in the 300 mg cohort (dose level 9). Additional eligible patients will be backfilled at 220 mg to further characterize safety, tolerability, and clinical activity, once dose level 9 is fully enrolled.
- APR-1051 has been shown to be well tolerated; the two most common adverse events have been Grade 1 or 2 nausea and fatigue. No treatment-related class-limiting toxicities, including severe myelosuppression or severe gastrointestinal toxicity, have been observed to date.
- Supported by the $30 million financing that closed on March 31, 2026, Aprea is expanding enrollment in ACESOT-1051 to include at least 50 patients with uterine serous carcinoma (USC), as well as patients with cyclin E-overexpressing, platinum-resistant ovarian cancer (PROC). The expansion is intended to provide additional safety, tolerability and preliminary efficacy data to inform the future clinical path for APR-1051. Completion of dose escalation is anticipated in the second quarter of 2027.
- Further clinical updates from ACESOT-1051 are expected during Q2 2026. An abstract entitled “Early results from the first-in-human phase 1 study of WEE1 inhibitor APR-1051 in patients with advanced solid tumors (ACESOT-1051)” has been accepted for the 2026 American Society of Clinical Oncology (ASCO) Annual Meeting. The poster will be presented on May 30, 2026, 1:30 – 4:30pm CT.
- For more information on ACESOT-1051, refer to ClinicalTrials.gov NCT06260514.

ABOYA-119: Clinical Trial Evaluating ATR inhibitor, ATRN-119

- ATRN-119 is a potent and highly selective first-in-class macrocyclic ATR inhibitor, designed and developed to be used in patients with tumors harboring mutations in DDR-related genes. Cancers with mutations in DDR-related genes represent a high unmet medical need. These patients often have a poor prognosis and currently lack effective therapeutics options.
- During 2025 Aprea established 1,100 mg once daily as the recommended Phase 2 dose (RP2D) in the ABOYA-119 clinical trial. The Company strategically paused further enrollment and has started an orderly wind-down of certain clinical trial site activities associated with the monotherapy, as the Company explores ATRN-119 in potential combination approaches that may unlock greater clinical benefit. The Company is currently in discussions with leading academic institutions to evaluate ATRN-119 in combination with radiation in HPV+ head and neck cancer. Additional investigator-led studies evaluating ATRN-119 with immuno-oncology therapies and antibody-drug conjugates are also being explored.
- For more information on ABOYA-119, please refer to clinicaltrials.gov NCT04905914.

Corporate

- On March 31, 2026, the Company closed an oversubscribed private placement, raising gross proceeds of $30 million. The private placement was led by Soleus Capital with participation from other new investors, including Vestal Point Capital and Squadron Capital Management, existing investors and certain insiders of the Company. Net proceeds will be used for general corporate purposes and research and development expenses, including the addition of more patients with USC (regardless of mutation status) into the ACESOT-1051 study and expansion into cyclin E-overexpressing PROC patients.
- In February 2026, the Company appointed Eugene (Gene) Kennedy, MD, as Chief Medical Advisor. Dr. Kennedy is a highly accomplished physician scientist and biopharmaceutical executive with more than 20 years of experience spanning oncology clinical development, regulatory strategy, and senior corporate leadership across public and private biotechnology companies.

Select Financial Results for the First Quarter Ended March 31, 2026

As of March 31, 2026, the Company reported cash and cash equivalents of $46.5 million compared to $14.6 million as of December 31, 2025. The Company believes that its cash and cash equivalents as of March 31, 2026 will be sufficient to meet its currently projected operating expenses and capital expenditure requirements into the first quarter of 2028.

For the first quarter ended March 31, 2026, the Company reported an operating loss of $3.4 million, compared to an operating loss of $4.1 million in the first quarter of 2025.

Research and Development (R&D) expenses were $1.6 million for the quarter ended March 31, 2026, compared to $2.5 million for the first quarter of 2025. The decrease in R&D expense was primarily related to a decrease of $0.8 million related to the ABOYA-119 clinical trial to evaluate ATRN-119, our clinical-stage oral small molecule inhibitor of ATR, which was voluntarily paused in October 2025.

General and Administrative (G&A) expenses were $1.8 million for each of the quarters ended March 31, 2026 and 2025.

The Company reported a net loss of $3.3 million or ($0.22) loss per basic share on approximately 14.7 million weighted-average common shares outstanding for the quarter ended March 31, 2026, compared to a net loss of $3.9 million ($0.66) per basic share on approximately 6.0 million weighted average common shares outstanding for the comparable period in 2025.

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, 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.

Investor Contact:
Mike Moyer
LifeSci Advisors
mmoyer@lifesciadvisors.com

APREA THERAPEUTICS

Aprea Therapeutics, Inc.
Consolidated Balance Sheets

	March 31, 2026 (unaudited)	December 31, 2025
Assets		
Current assets:		
Cash and cash equivalents	$ 46,466,202	$ 14,599,347
Prepaid expenses and other current assets	779,238	961,899
Total current assets	47,245,440	15,561,246
Property and equipment, net	54,379	59,807
Restricted cash	41,406	41,186
Other noncurrent assets	271,162	271,162
Total assets	$ 47,612,387	$ 15,933,401
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 2,940,756	$ 713,668
Accrued expenses	2,355,890	2,050,690
Total current liabilities	5,296,646	2,764,358
Commitments and contingencies		
Series A convertible preferred stock, $0.001 par value, 40,000,000 shares authorized; 31,194 shares issued and outstanding at March 31, 2026 and December 31, 2025	727,361	727,361
Stockholders' equity:		
Common stock, $0.001 par value, 400,000,000 shares authorized, 11,982,776 and 8,192,538 shares issued and outstanding at March 31, 2026 and December 31, 2025, respectively	11,983	8,192
Additional paid-in capital	389,631,454	356,709,645
Subscription Receivable	(499,999)	—
Accumulated other comprehensive loss	(10,625,700)	(10,634,714)
Accumulated deficit	(336,929,358)	(333,641,441)
Total stockholders' equity	41,588,380	12,441,682
Total liabilities and stockholders' equity	$ 47,612,387	$ 15,933,401

Aprea Therapeutics, Inc.
Consolidated Statements of Operations and Comprehensive Loss
(Unaudited)

	Three Months Ended March 31,	
	2026	2025
Grant revenue	$ —	$ 162,463
Operating expenses:		
Research and development	1,611,167	2,483,066
General and administrative	1,819,245	1,764,979
Total operating expenses	3,430,412	4,248,045
Loss from operations	(3,430,412)	(4,085,582)
Other income (expense):		
Interest income, net	134,784	204,726
Foreign currency gain (loss)	7,711	(51,803)
Total other income	142,495	152,923
Net loss	$ (3,287,917)	$ (3,932,659)
Other comprehensive loss:		
Foreign currency translation	9,014	643
Total comprehensive loss	$ (3,278,903)	$ (3,932,016)
Net loss per share attributable to common stockholders, basic and diluted	$ (0.22)	$ (0.66)
Weighted-average common shares outstanding, basic and diluted	14,685,448	5,993,866

APREA THERAPEUTICS

WE CAN'T WAIT TO CURE CANCER

A clinical-stage precision medicine oncology company focused on the discovery and development of targeted therapies for patients with biomarker-defined cancers

May 2026

Forward-Looking Statements

Certain information contained in this presentation 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 projecte 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 identif 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 presentation 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 result 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 a 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 presentation. We undertake no obligation to update such forward-looking statements for any reason, except as required by law. This presentation shall not constitute an offer to sell or the solicitation of an offer to buy any securities, nor shall there be any sale of any securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction. This presentation may not be reproduced, forwarded to any person or published, in whole or in part.

Aprea Therapeutics (NASDAQ: APRE)
One Critical Pathway - Multiple Targets

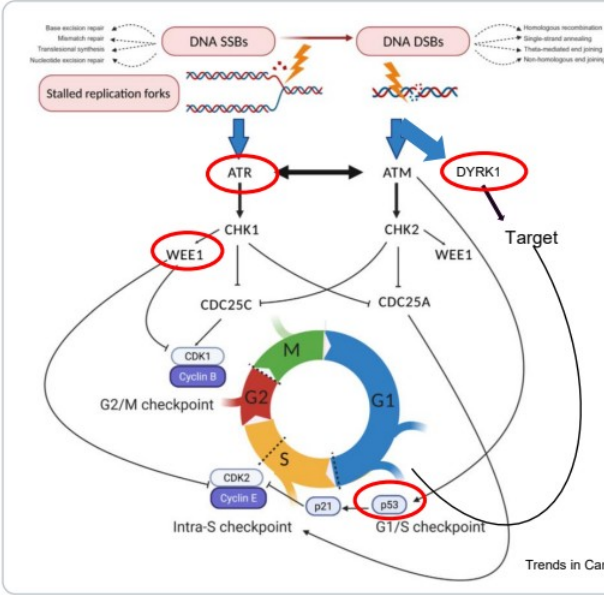
Positioned at the forefront of synthetic lethality and precision medicine

Targeted Oncology
Transition from broad, toxic chemotherapy to potentially safer, precision-guided targeted therapies

Precision-Driven Development
Develop highly selective cancer therapies that exploit tumor-specific mutations to maximize cancer cell killing while sparing healthy tissue

Pipeline with Clinical Momentum
All programs are designed to address significant unmet medical needs across genetically defined cancer populations

Early Clinical Proof-of-Concept
Monotherapy activity demonstrated in ongoing Phase 1 trial

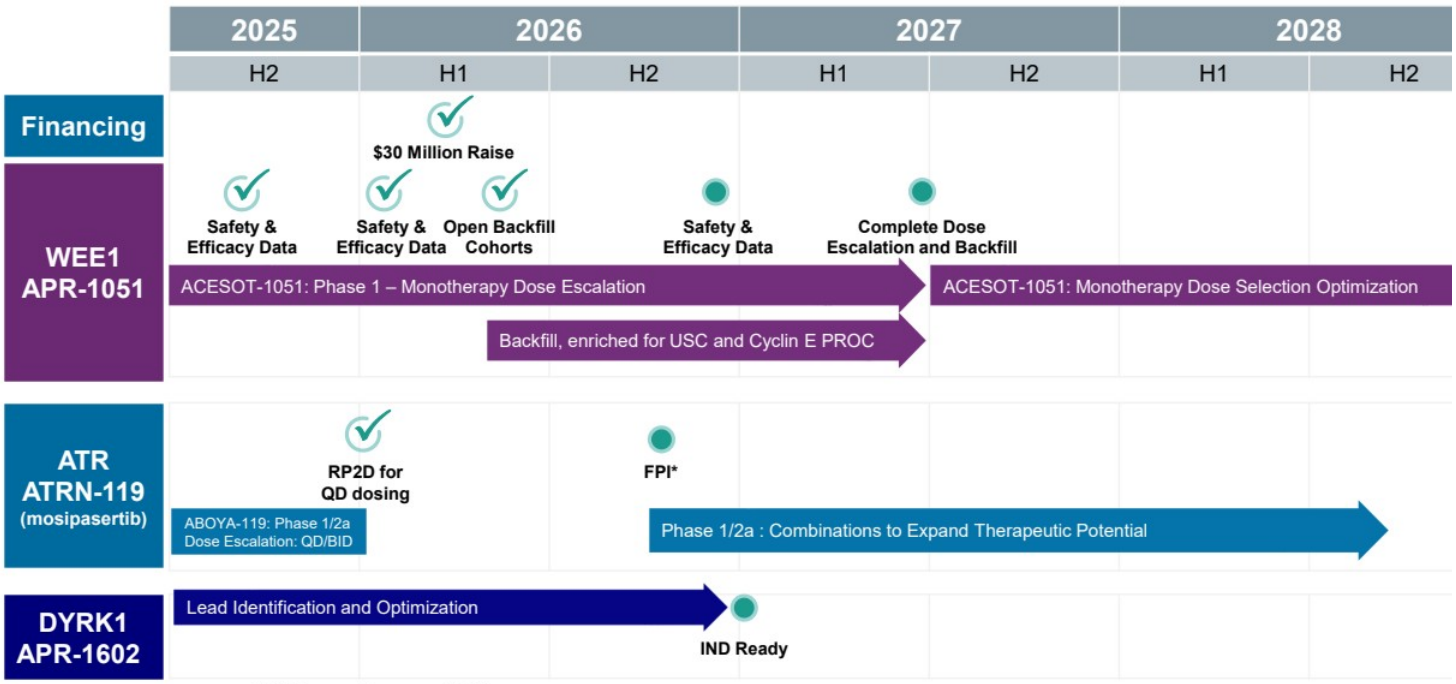


APREA THERAPEUTICS

1. Ngoi N, *et al*. Targeting the replication stress response through synthetic lethal strategies in cancer medicine. *Trends in Cancer*. (2021); 7(10):930-957

Robust DDR Development Pipeline and Corporate Milestones

2025-2028 Accomplished and anticipated milestones



APREA THERAPEUTICS

DNA Damage Response (DDR)

*FPI contingent upon execution of a research collaboration or partnering agreement; study initiation is expected to be externally supported without use of current company resources.

Strong Drug Development and Commercial Expertise

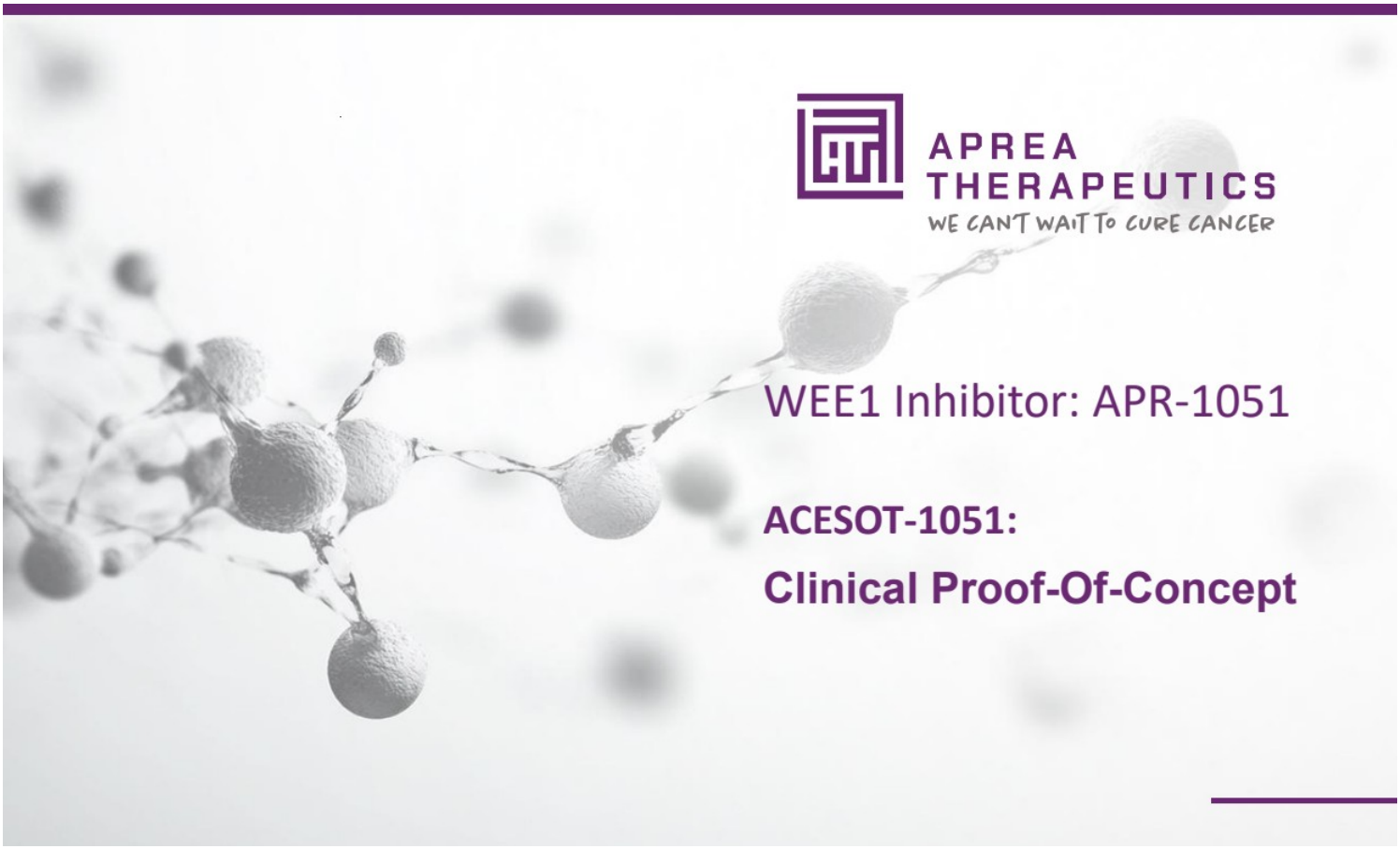
Experienced team in synthetic lethality and targeted therapy

Management

Oren Gilad, PhD President and CEO	John P. Hamill SVP and CFO	Eugene Kennedy, MD Chief Medical Advisor	Ze'ev Weiss, CPA, BSc Chief Business Advisor	Mike Carleton, PhD Translational Medicine Advisor	Brian Wiley SVP, Corporate Strategy
ATRIN Pharmaceuticals Perelman School of Medicine	WINDTREE THERAPEUTICS Trevena SAVIENT PHARMACEUTICALS, INC. NephroGenex pharmanet	carisma THERAPEUTICS Galera Therapeutics, Inc ICT Innovative Cellular Therapeutics NewLink GENETICS	ATRIN Pharmaceuticals INTEC PHARMA pwc	inipharm ATRIN Pharmaceuticals MERCK Bristol Myers Squibb presage MaYu PHARMA	Boston BioConsulting Gloucester Aventis

Board of Directors

Richard Peters, MD, PhD Chairman of the Board	**Oren Gilad, PhD** President and CEO	**Jean-Pierre Bizzari, MD** Director
Marc Duey Director	**Michael Grissinger** Director	**Gabriela Gruia, MD** Director
John Henneman Director	**Rifat Pamukcu, MD** Director	**Bernd R. Seizinger, MD, PhD** Director


APREA
THERAPEUTICS
WE CAN'T WAIT TO CURE CANCER
WEE1 Inhibitor: APR-1051
ACESOT-1051:
Clinical Proof-Of-Concept

WEE1 Has Emerged as a Therapeutic Target of Significant Industry Inte

Clinically validated, prior WEE1 inhibitors have been challenged by narrow therapeutic windows
Aprea is applying key insights to advance APR-1051 as a potentially best-in-class WEE1 inhibitor

Program	Clinical Limitations	Strategic Outcome	What It Signals
Adavosertib (AstraZeneca)	Hematologic & GI toxicity limited dose intensity	Terminated further clinical development Returned by AstraZeneca to Merck & Co.	Biology works, narrow therapeutic window
Azenosertib (Zentalis)	Continuous dosing not tolerated[1]	TRAEs leading to dose reductions, interruptions and discontinuation	Biology works, therapeu window still being defin
Debio 0123 (Debiopharm)	QT prolongation liability at high doses[2]	Limited single-agent activity – no responses up to MTD[3]; activity seen in combination with PKMYT1 inhibitor[4]	Potential future as combination agent
Program	**Engineered Profile**	**Strategic Outcome**	**What It Signals**
APR-1051 (Aprea Therapeutics)	Structurally differentiated, highly potent, limited off-target inhibition	Early signals of monotherapy activity without class-limiting tox to date	Potential to expand therapeutic window

No head-to-head studies have been conducted. Trial information is based on publicly available data and should be interpreted cautiously

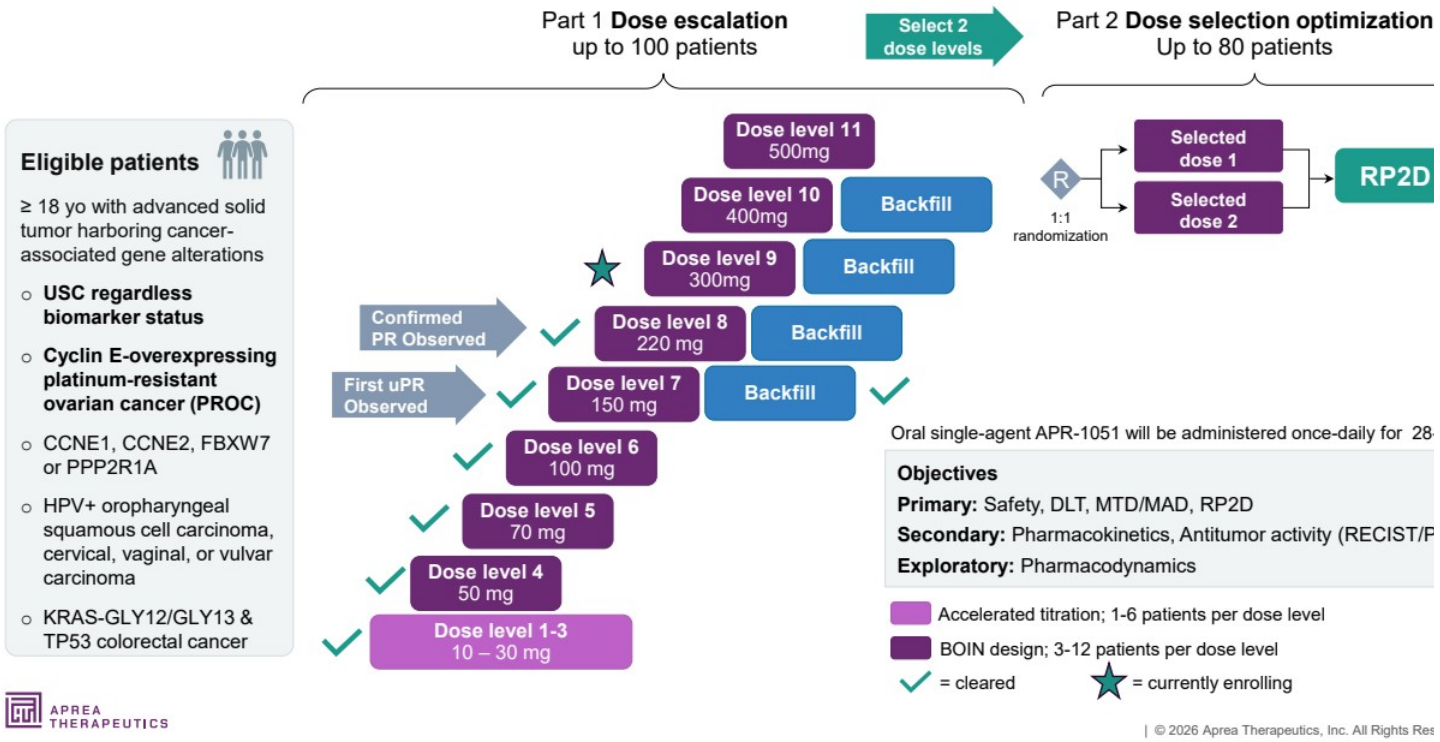
TRAEs – Treatment related adverse events

1. Zentalis Corporate Presentation, April 2026
2. Debio 0123-101, A Phase 1 Trial of Debio 0123 In Combination With Carboplatin In Advanced Solid Tumors: Safety, Pharmacokinetic, And Preliminary Antitumor Activity Data, Poster ASCO 2023
3. Abstract 3120, ASCO 2024
4. Poster CT022, AACR 2026

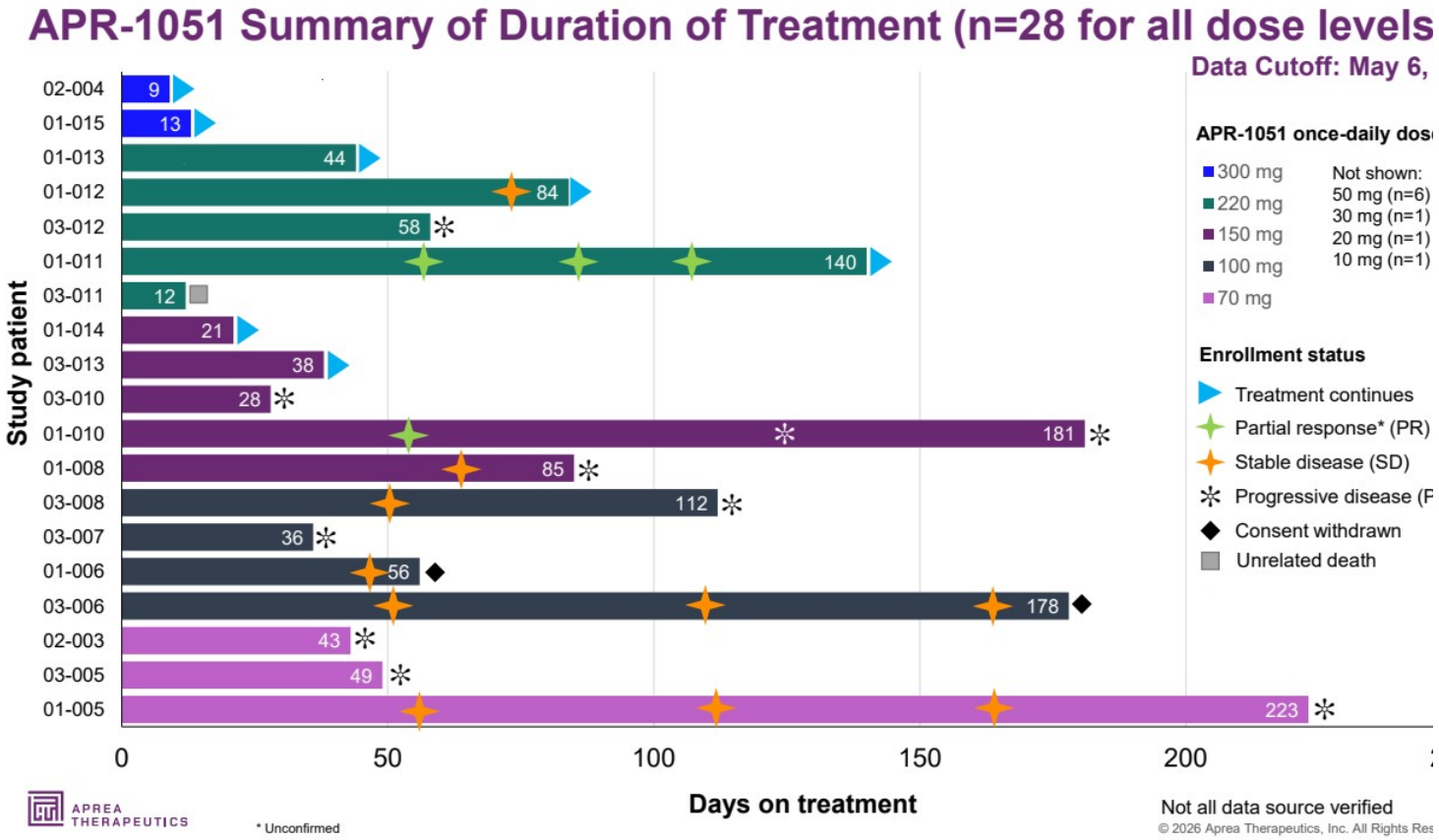
APREA THERAPEUTICS

ACESOT-1051: Phase 1 Study Design

Multi-center, open-label Phase 1 single-agent dose escalation and dose selection optimization



APREA THERAPEUTICS


APR-1051 Summary of Duration of Treatment (n=28 for all dose levels
Data Cutoff: May 6,
APR-1051 once-daily dos
300 mg
220 mg
150 mg
100 mg
70 mg
Not shown:
50 mg (n=6)
30 mg (n=1)
20 mg (n=1)
10 mg (n=1)
Enrollment status
Treatment continues
Partial response* (PR)
Stable disease (SD)
Progressive disease (P
Consent withdrawn
Unrelated death
Study patient
02-004
01-015
01-013
01-012
03-012
01-011
03-011
01-014
03-013
03-010
01-010
01-008
03-008
03-007
01-006
03-006
02-003
03-005
01-005
9
13
44
84
58
140
12
21
38
28
181
85
112
36
56
178
43
49
223
0
50
100
150
200
Days on treatment
APREA THERAPEUTICS
* Unconfirmed
Not all data source verified
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Treatment-related AEs in Patients Treated with APR-1051 (N=28)

Data Cutoff: May 6, 2026

MedDRA Preferred Term	APR-1051 All dose levels (N=28)	
Treatment-related AEs, n (%)[a]	**All Grades**	**Grade ≥ 3[b]**
Nausea	10 (35.7)	0 (0)
Fatigue	4 (14.3)	0 (0)
Vomiting	3 (10.7)	0 (0)
Alanine aminotransferase increased	1 (3.6)	1 (3.6)[c]
Anemia	1 (3.6)	0 (0)
Aspartate aminotransferase increase	1 (3.6)	1 (3.6)[c]
Blood bilirubin increased	1 (3.6)	0 (0)
Constipation	1 (3.6)	0 (0)
Dehydration	1 (3.6)	0 (0)
Dysgeusia	1 (3.6)	0 (0)
Dyspepsia	1 (3.6)	0 (0)
Eczema	1 (3.6)	0 (0)
Gastroesophageal reflux disease	1 (3.6)	0 (0)
Hypokalemia	1 (3.6)	0 (0)
Lymphocyte count decreased	1 (3.6)	1 (3.6)
Platelet count decreased	1 (3.6)	0 (0)

APREA THERAPEUTICS

a A patient may have more than one AE and/or have the same AE more than once
b Grade 3 unless otherwise indicated
c Increased alanine aminotransferase and aspartate aminotransferase occurred in the same patient, was determined to be serious, and considered one DLT event

Not all data source verified

Confirmed Partial Response in Patient 01-011

220mg QD – Currently on treatment

Demographics: 63-year-old Black Female
Site: MD Anderson Cancer Center
Diagnosis: Uterine carcinosarcoma
Key Mutations: PPP2R1A

Treatment History (4 prior lines)

- Line 1: Carboplatin + Paclitaxel → 126 days, PD
- Line 2: Doxorubicin → 56 days, PD
- Line 3: Topotecan → 70 days, PD
- Line 4: Pembrolizumab + Lenvatinib → 5months, PD

APR-1051 – Treatment Outcome

- C1D1: Dec 18, 2025
- Current Status: **On treatment 140 days (C6D1) – May 6, 2026**
- Best Response: **Confirmed Partial Response (PR)**
  - PR (-50%) at first assessment Feb 10, 2026
  - Confirmed PR with additional -9.5% reduction from C3D1 Mar 10, 2026; scan April 8, 2026 showed 0% change
- Tumor marker: CA-125 reduction from BL 362.4 U/mL to C3D1 46.8 U/mL (87% decrease); 40.2 U/mL Mar 11, 2026; 53 U/ml April 08
- Adverse Events: C1D22 Gr 1 rash. C1D15 Gr1 thrombocytopenia , possibly related to IP; intermittent nausea Gr1 probably related; a increase Gr1 unlikely related. No DLT

APREA THERAPEUTICS

Disease Control Observed in Early Patient Outcomes

APR-1051 shows single agent activity in rectal cancer with mutated FBXW7

100 mg Cohort Case Report

Stable disease maintained for 178 days in patient with FBXW7 mutation (100 mg QD) (elected to stop study participati

Patient: 86-year-old Asian Female
Diagnosis: Rectal Cancer
Key Mutations: FBXW7 (Drives Cyclin E accumulation and overexpression)

Treatment History: 5 prior lines - heavily pretreated

- **Line 1:** Capecitabine/oxaliplatin → 191 days, PD
- **Line 2:** Capecitabine/oxaliplatin/bevacizumab → 45 days, PD
- **Line 3:** FOLFIRI + bevacizumab → 43 days, PD
- **Line 4:** Local XRT (lung mets) → 12 days, not evaluable
- **Line 5:** Tretinoin/bevacizumab/Tecentriq (ATRT trial) → 50 days, PD

APR-1051 Activity:

- **Current Status:** Consent withdrawn after 178 days
- **Best Response:** SD at third scan (-15% tumor response)

Notes: Durable SD maintained 181 days in a heavily pretreated 86-year-old patient; well tolerated with minimal toxicity. FBXW7 mutation may be relevant to response

Disease Control Observed in Early Patient Outcomes

APR-1051 shows single agent activity in HPV+ head and neck cancer

70 mg Cohort Case Report

Stable disease maintained for 223 days in patient 01-005 HPV+ head and neck cancer (70 mg QD) (PD)

Patient: 62-year-old White Male
Diagnosis: HPV+ Oropharyngeal Squamous Cell Carcinoma (base of tongue)

Key Mutations: P16+

Treatment History: 3 prior lines

- **Line 1:** Concomitant cisplatin/XRT → 49 days, PD
- **Line 2:** Pembrolizumab→ 84 days, PD
- **Line 3:** Paclitaxel/carboplatin → 184 days, PD

APR-1051 Activity

- **Current Status:** PD after 223 days of SD treatment
- **Best Response:** SD at first scan (-5% tumor response)

Notes: Stable disease maintained for 223 days.

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Biomarker Defined Registration Path

Early signals of monotherapy activity across cohorts in genomically defined tumors including uterin cancer, endometrial cancer, CRC and HNSCC

Clinical Activity by Indication and Biomarker

Indication	Biomarker / Altered Genes	Clinical Activity in ACESOT-1051 to Date
Uterine/ Endometrial Cancer	PPP2R1A	2 PR 2 SD
	CCNE1 overexpressed TP53	
CRC	KRAS & TP53	3 SD
	FBXW7	
HNSCC	HPV+	1 SD

Path to Registrational Cohort

1. Expand USC and CycE-PROC
2. Add additional cohorts
   - CRC FBXW7-mutated
   - HPV+ cancers
   - PPP2R1A mutated
3. Confirm durability, consistency of response and safety

- Responses across dose levels support a biomarker enriched expansion path
- Activity beyond endometrial cancer supports additional biomarker-defined cohorts

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Data are preliminary from an ongoing dose-escalation study. Responses and stable disease require confirmation in additional patients, and may change as follow-up matures. Safety and efficacy outcomes may vary by dose, schedule, and patient characteristics.


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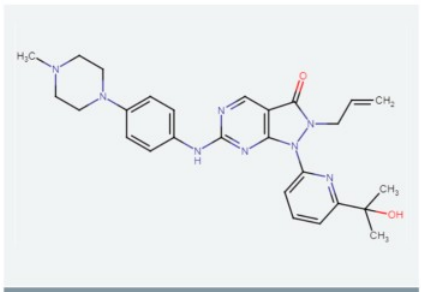
WE CAN'T WAIT TO CURE CANCER
APR-1051:
Potentially Differentiated WEE1 Inhibitor
Pre-Clinical

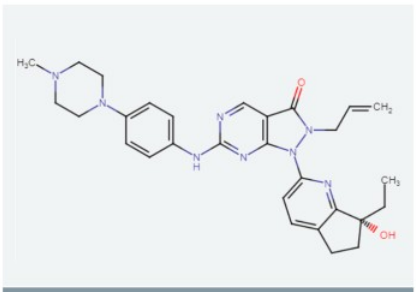
APR-1051: Potentially Best-in-Class WEE1 Inhibitor

Structurally differentiated: high potency, limited off-target inhibition design compared to other mole

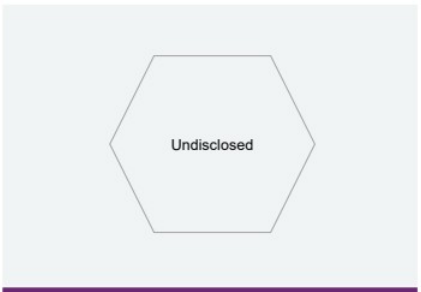
APR-1051 is based on a different molecular structure than AZD-1775 and ZN-c3 (not an analogue)



AstraZeneca
Adavosertib (AZD-1775)



Zentalis
Azenosertib (ZN-c3)



Aprea
APR-1051

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No head-to-head clinical studies have been conducted.

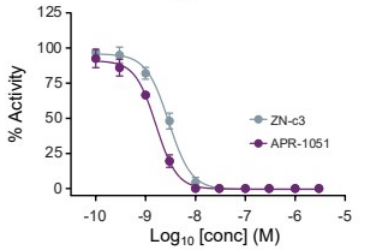
APR-1051: Potentially Best-in-Class WEE1 Inhibitor

Potent inhibitor of WEE1

Does not substantially inhibit structurally and functionally related PLK1, PLK2 or PLK3

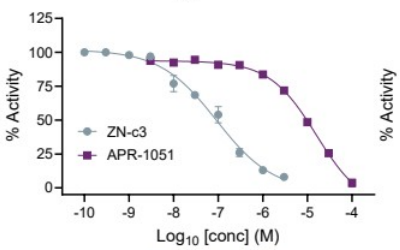
On-target WEE1 potency[1]

Important difference in off-target inhibition between APR-1051 and ZN-c



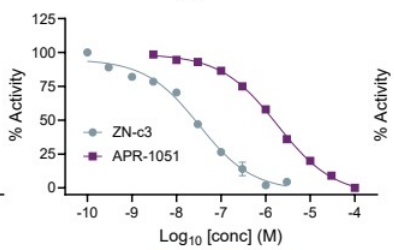
ZN-c3 = 2.9 nM
APR-1051 = 1.6 nM

WEE1 Inhibition
IC50 similar to ZN-c3



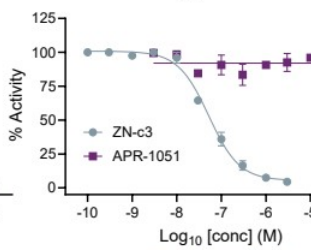
ZN-c3 = 92.1 nM
APR-1051 = 15,900 nM

PLK1 Inhibition
IC50 >150-fold difference



ZN-c3 = 32.0 nM
APR-1051 = 1,800 nM

PLK2 Inhibition
IC50 >50-fold difference



ZN-c3 = 52.2 nM
APR-1051 = 31,600 nM

PLK3 Inhibition
IC50 >600-fold differen

APR-1051 specificity for WEE1 opens potential for greater therapeutic window

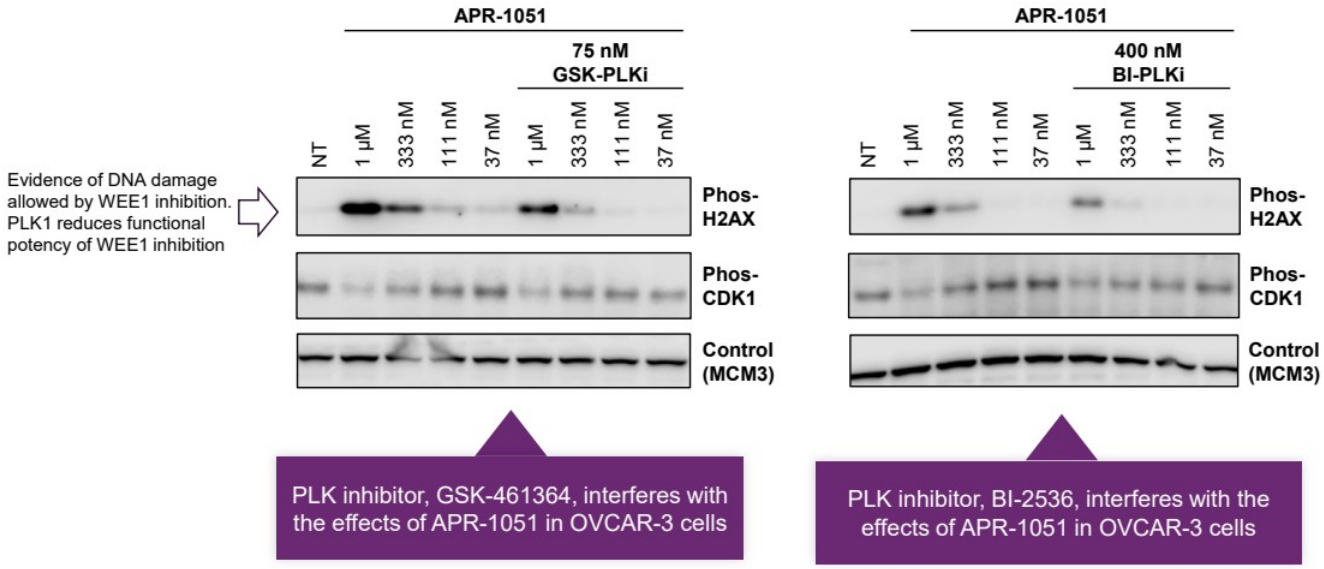
APREA THERAPEUTICS

[1]Data from exploratory in-vitro studies. No head-to-head clinical studies have been conducted.

AACR-NCI-EORTC Meeting, Poster B323,

PLK1 Inhibition Counteracts Effect of WEE1 Inhibitors[1]

Minimal PLK1 co-inhibition enhances therapeutic window for APR-1051



Inhibition of PLK1 reduces efficacy of WEE1 inhibition. Results in requiring higher doses of WEE1 inhibitors and introduces PLK1 related toxicity

APREA THERAPEUTICS

[1]Data from exploratory in-vitro studies

Studies Show PLK1 Suppression is Associated with Sepsis-Induced Loss of Intestinal Barrier Function

SCIENTIFIC REPORTS

OPEN

PLK1 protects against sepsis-induced intestinal barrier dysfunction

Received: 25 August 2017
Accepted: 4 January 2018
Published online: 18 January 2018

Yingya Cao, Qun Chen, Zhen Wang, Tao Yu, Jingyi Wu, Xiaogan Jiang, Xiaoju Jin & Weihua Lu

Sepsis and sepsis-associated intestinal barrier dysfunction are common in intensive care units, with high mortality. The aim of this study is to investigate whether Polo-like kinase 1 (PLK1) ameliorates sepsis-induced intestinal barrier dysfunction in the intestinal epithelium. The mouse intestinal barrier was disrupted after Lipopolysaccharide (LPS) injection due to intestinal epithelial cell apoptosis and proliferation inhibition, accompanied by decreased PLK1. In HT-29 intestinal epithelial cells, LPS stimulation induced cell apoptosis and inhibited cell proliferation. Overexpression of PLK1 partly rescued the apoptosis and proliferation inhibition in HT29 cells caused by LPS. Finally, LPS stimulation promoted the reduction of PLK1, resulting in apoptosis and proliferation inhibition in intestinal epithelial cells, disrupting the intestinal epithelial barrier. These findings indicate that PLK1 might be a potential therapeutic target for the treatment of sepsis-induced intestinal barrier dysfunction.

Cao et al. Molecular Medicine (2022) 28:163
https://doi.org/10.1186/s10020-022-00597-z

Molecular Medicine

RESEARCH ARTICLE Open Access

PLK1 protects intestinal barrier function during sepsis by targeting mitochondrial dynamics through TANK-NF-κB signalling

Ying-Ya Cao[1,2†], Yuan Zhang[1†], Wuyun Gerile[1†], Yan Guo[1], Li-Na Wu[1], Li-Li Wu[1], Kai Song[1], Wei-Hua Lu[2] and Jian-Bo Yu[1*]

Contents lists available at ScienceDirect

Cytokine

journal homepage: www.elsevier.com/locate/cytokine

PLK1 protects intestinal barrier function in **sepsis**: A translational research

Ying-Ya Cao [a,b,1], Juan Li [c,1], Qun Chen [a,b,1], Yu-Peng Qi [a,b,1], Qian-Cheng Xu [a,b], Jia-Min He [a,b], Zhen Wang [d], Wei-Hua Lu [a,b,*]

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[b] Anhui Province Clinical Research Center for Critical Respiratory Medicine, Wuhu 241001, Anhui, China
[c] Department of Nephrology, Wuhu Hospital, East China Normal University (The Second People's Hospital, Wuhu), Wuhu 241000, Anhui, China
[d] Department of General Practice, The First Affiliated Hospital of Wannan Medical College (Yijishan Hospital of Wannan Medical College), Wuhu 241001, Anhui, China

Received: 15 February 2021 | Revised: 25 April 2021 | Accepted: 16 May 2021
DOI: 10.1002/cbin.11633

RESEARCH ARTICLE

Cell Biology International WILEY

LncRNA DANCR improves the dysfunction of the intestinal barrier and alleviates epithelial injury by targeting the miR-1306-5p/PLK1 axis in sepsis

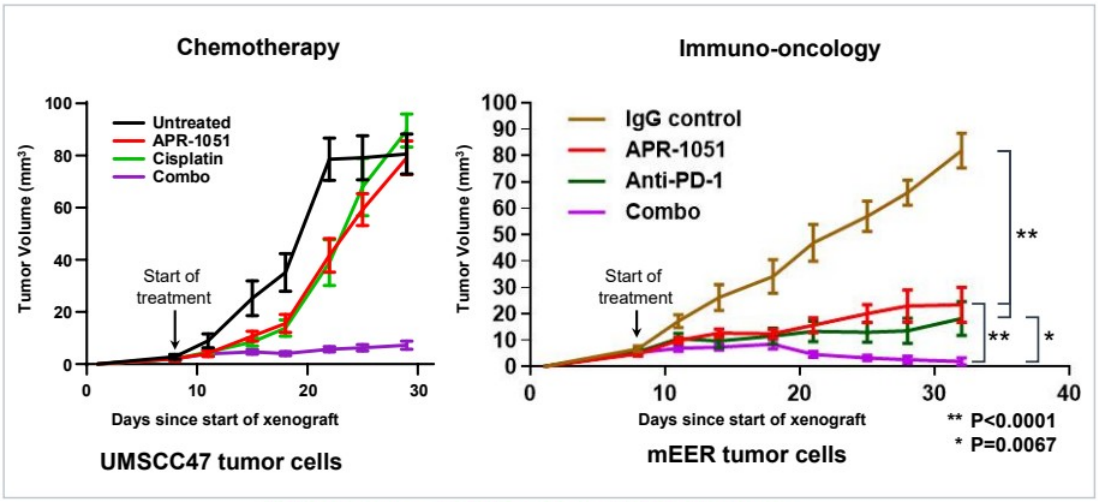
Zhen Wang[1] | Changshun Zhong[1] | Yingya Cao[1] | Hongzhen Yin[1] | Guanggui Shen[1] | Weihua Lu[1] | Wei Ding[2]

1 PLK1 protects against sepsis-induced intestinal barrier dysfunction, Cao *et al, Scientific Reports* (2018).
2 PLK1 protects intestinal barrier function in sepsis: A translational research, Cao *et al*, *Cytokine* (2023).
3 PLK1 protects intestinal barrier function in sepsis: A translational research, Cao *et al*, *Molecular Medicine* (2022).
4 LncRNA DANCR improves the dysfunction of the intestinal barrier and alleviates epithelial injury by targeting the miR-1306-5p/PLK1 axis in sepsis, Wang *et al., Cell Biology International* (2021).

APREA THERAPEUTICS

APR-1051 Demonstrated Preclinical Activity in Combination with Chemo, IO and ATRi Across Multiple Cancer Models

APR-1051 demonstrates synergistic potential preclinically with standard oncology agents



HPV+ Cancer – Collaboration with MD Anderson

Ovarian Cancer*

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* Data on file.

APR-1051 WEE1 Summary

First-in-class to translate validated biology into a scalable commercial asset

1. **Clinically validated target**
   - WEE1 inhibitors have shown promising activity in genomically defined tumors
   - Competitor programs constrained by low therapeutic window

2. **APR-1051 clinical highlights**
   - Early clinical proof-of-concept at 150 mg and 220 mg dose levels
   - Two partial responses and six patients with stable disease to date
   - Potentially favorable safety profile at active dose levels
   - Clinical team strengthened to drive next development phase
   - Enrollment continues, additional clinical data expected this quarter

3. **APR-1051 preclinical differentiation and potentially best-in-class opportunity**
   - Novel structure with high potency, limited off-target inhibition design
   - Minimal PLK1 inhibition enhances therapeutic window
   - Potential for synergy demonstrated in combination with standard oncology agents

APREA THERAPEUTICS

WE CAN'T WAIT TO CURE CANCER

Intellectual Property Portfolio

Financial Summary & Capitalization

Investment Highlights

Robust Global Intellectual Property Protection

Family 1: **Ataxia Telangiectasia and Rad3-Related (ATR) Protein Kinase Inhibitors**

- Macrocyclic inhibitors of ATR & methods of using them to treat various cancers, filed on Oct. 13th, 2015
- Patents granted in AU, BR, CA, CN, EP, IL, IN, JP, KR, MX, HK.
- 1.1: Issued on May 30, 2017 as U.S. Patent 9,663,535
- 1.2: Issued on May 29, 2018 as U.S. Patent 9,981,989
- 1.3: Issued on Feb. 5, 2019 as U.S. Patent 10,196,405

Family 2: **ATR Inhibitors and Methods of Use**

- Carboxylic acid-containing macrocyclic ATR inhibitors, and prodrugs; methods of using these inhibitors to treat various cancers; filed on Apr. 12th, 2017
- Issued on May 28th, 2019 as U.S. Patent 10,301,324

Family 3: **ATR Inhibitor Pharmaceutical Composition and Methods**

- International application filed on Apr. 14th, 2023
- Pharmaceutical formulation and composition of our lead ATR inhibitor in the clinic
- Patent granted in JP; Applications pending US, AU, BR, CA, CN, EA, EP, HK, IL, IN, KR, MX, NZ, PH, SG, ZA

Family 4: **WEE1 Inhibitor Pharmaceutical Compositions and Methods**

- International Application filed on Jun. 3rd, 2022
- Composition of our lead WEE1 inhibitor compounds
- Patent granted in AU; Applications pending in US, AU, BR, CA, CN, EP, HK, IL, IN, JP, KR, MX, ZA

Family 5: **Methods of Treating Cancer**

- International application filed on Sept. 19, 2025
- Clinical methods of treating advanced solid cancer tumors using lead ATR inhibitor

Family 6: **Macrocyclic Undisclosed DDR target Inhibitors and Methods of their Preparation and Use**

- International application filed on Jan. 22, 2026
- U.S. Provisional Applications filed on Jun. 6, 2025, and Sep. 19, 2025

APREA THERAPEUTICS

Aprea Therapeutics (NASDAQ: APRE)

Financial Summary and Capitalization

Cash and Equivalents of ~$46.5M as of March 31, 2026

$30.0M in gross proceeds raised in private placement that closed on March 31, 2026

Securities	Common Equivalents as of May 13, 2026
Preferred Stock (as converted)	15,596
Common Stock (1)	12,382,776
Warrants (2)	89,638,517
Options	1,050,501
Restricted Stock Units	48,718
Fully Diluted Equivalents	103,120,512

APREA THERAPEUTICS

1. 400,000,000 common shares authorized
2. Total warrants include pre-funded, Tranche A, Tranche B and Purchase

Investment Highlights

Technology developed by pioneers in synthetic lethality

- Management with strong drug development and commercial expertise
- Focused on addressing unmet needs for patients with biomarker defined cancers

Highly potent and selective design, potential best in class inhibitors, de-risked progra

- Diversified portfolio including WEE1 (APR-1051) and ATR (ATRN-119) inhibitors
- Early evidence of clinical activity including PRs (one confirmed) with APR-1051
- Single agent and combination potential therapies

Near term catalysts

- APR-1051: Q2 2026 Safety/efficacy data; Q2 2027 Complete dose escalation
- ATRN-119: October 2025 RP2D ✓ H2 2026 Potential collaborations on combinations

Expected cash runway into Q1 2028

- Achieve near term inflection points and catalysts
- Evaluate optimal strategic partnerships

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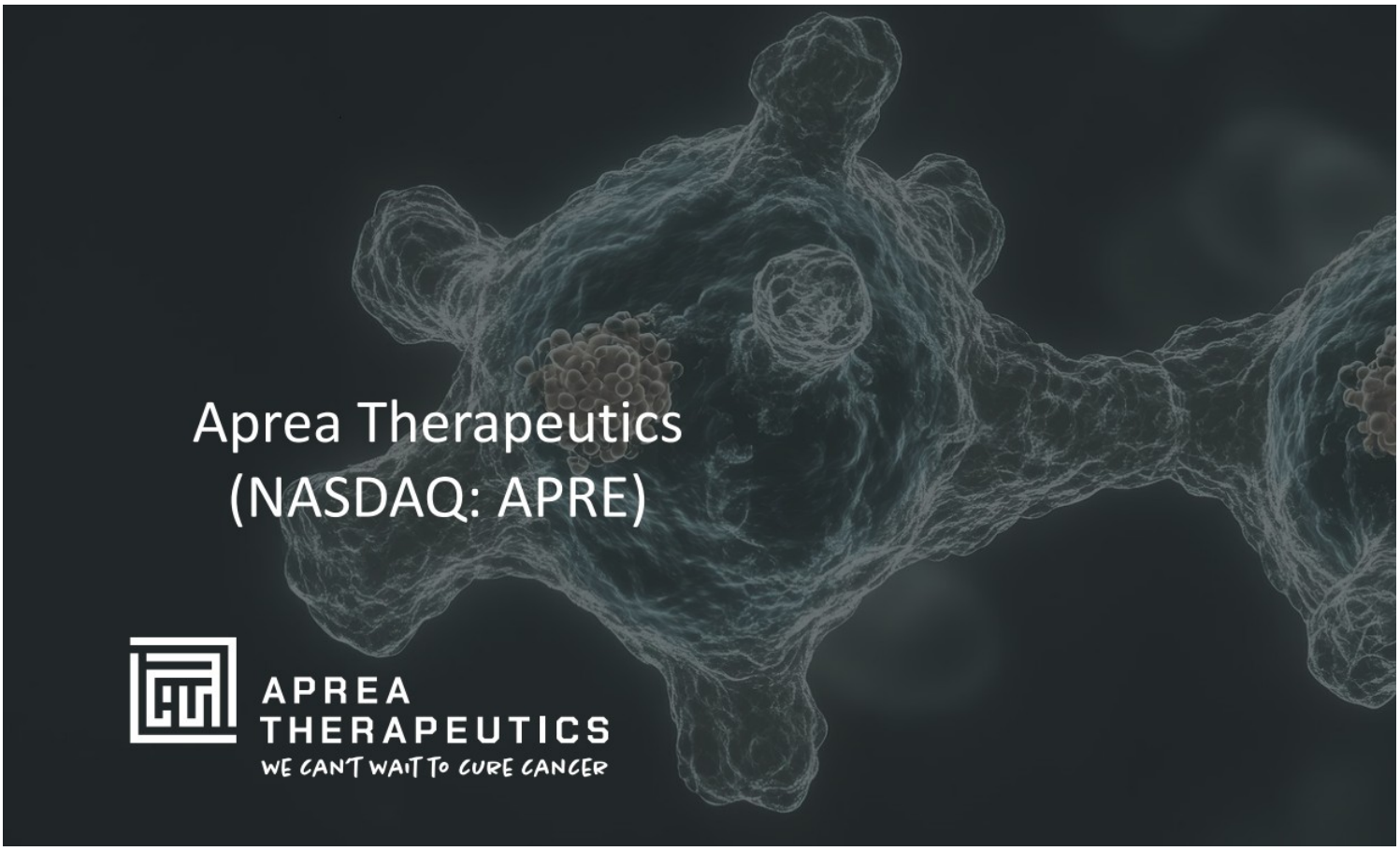
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(NASDAQ: APRE)
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WE CAN'T WAIT TO CURE CANCER