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

Date of Report (Date of earliest event reported): April 24, 2024

Acrivon Therapeutics, Inc.

(Exact name of Registrant as Specified in Its Charter)

Delaware	**001-41551**	**82-5125532**
(State or Other Jurisdiction of Incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**
480 Arsenal Way **Suite 100** **Watertown, Massachusetts**		**02472**
(Address of Principal Executive Offices)		**(Zip Code)**

Registrant's Telephone Number, Including Area Code: 617 207-8979

Not Applicable

,
(Former Name or Former Address, if Changed Since Last Report)

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	ACRV	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 April 24, 2024, Acrivon Therapeutics, Inc. (the "Company") disclosed a preliminary cash and cash equivalents and short-term investments balance of approximately $110 million as of March 31, 2024. The Company also disclosed a preliminary pro forma cash and cash equivalents and short-term investments balance of approximately $234 million as of March 31, 2024, after giving effect to the net proceeds of the Company's private placement previously disclosed on April 9, 2024.

Because the Company's consolidated financial statements for the three months ended March 31, 2024 have not yet been finalized, the preliminary statement of the Company's cash and cash equivalents and short-term investments as of March 31, 2024 in this Item 2.02 is subject to change, and the Company's actual cash and cash equivalents and short-term investments as of March 31, 2024 may differ materially from this preliminary estimate. Accordingly, you should not place undue reliance on this preliminary estimate.

The information in this Item 2.02 shall not be deemed "filed" for 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 in any filing under the Securities Act of 1933, as amended (the "Securities Act"), or the Exchange Act, except as expressly set forth by specific reference in such filing.

Item 7.01 Regulation FD Disclosure.

On April 24, 2024, the Company is hosting a virtual corporate R&D event from 4:15 p.m. to 5:30 p.m. ET. The agenda will feature presentations by the Company's leadership team, followed by an interactive Q&A session. In connection with this event, the Company posted to the "Investors & Media" section of the Company's website at ir.acrivon.com, a corporate presentation providing an update on the Company's business (the "Corporate Presentation"). In connection with this event, the Company also issued a press release (the "Press Release").

Copies of the Corporate Presentation and Press Release are attached hereto as Exhibits 99.1 and 99.2, respectively, and are incorporated by reference into this Item 7.01 of this Current Report on Form 8-K.

The information in this Item 7.01, including Exhibits 99.1 and 99.2 attached hereto, shall not be deemed "filed" for purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act or the Exchange Act, except as expressly set forth by specific reference in such filing.

Item 8.01 Other Events.

Phase 2b Initial Clinical Data

On April 24, 2024, the Company announced initial clinical data from its ongoing registrational-intent Phase 2b clinical trial of ACR-368 in patients with ovarian or endometrial cancers (n=26; 10 OncoSignature-positive and 16 OncoSignature-negative). The data presented was as of an April 1, 2024 data cut.

A confirmed objective response rate ("ORR") (per RECIST 1.1) of 50% was observed in the prospective cohort of OncoSignature-positive patients who were efficacy-evaluable. All confirmed responders continued to be on treatment and median duration of response ("DoR") had not yet been reached.

The data provided initial, prospective validation of the Acrivon Predictive Precision Proteomics ("AP3")-based ACR-368 OncoSignature assay's ability to identify ovarian and endometrial patients sensitive to ACR-368 monotherapy in the ongoing clinical trial, with clear segregation of RECIST responders in the OncoSignature-positive (50% confirmed ORR in 10 patients) versus OncoSignature-negative (0% ORR in 16 patients) arms (*p-value*=0.0038).

In the OncoSignature-negative arm of the trial with ovarian or endometrial cancers, encouraging signs of clinical activity were observed in response to ACR-368 with ultra-low dose gemcitabine at the recommended Phase 2 combination dose, with 8 out of 16 patients having achieved stable disease.

Consistent with past trials, the ACR-368 treatment-related adverse event profile was predominantly reversible and transient with only mechanism-based, hematological adverse events.

Cash and Cash Equivalents and Short-term Investments

As disclosed above under Item 2.02, on April 24, 2024, the Company disclosed a preliminary cash and cash equivalents and short-term investments balance of approximately $110 million as of March 31, 2024. The Company believes that its pro forma cash and cash equivalents and short-term investments of approximately $234 million as of March 31, 2024, after giving effect to the net

proceeds of the Company's private placement previously disclosed on April 9, 2024, will be sufficient to fund the Company's operations into the second half of 2026.

Item 9.01 Financial Statements and Exhibits.

Exhibit Number	Description
99.1	Acrivon Therapeutics, Inc., Presentation
99.2	Press Release, dated April 24, 2024
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.

Acrivon Therapeutics, Inc.

Date: April 24, 2024

By: /s/ Rasmus Holm-Jorgensen
Rasmus Holm-Jorgensen
Chief Financial Officer

Acrivon Therapeutics

ACRIVON PREDICTIVE PRECISION PROTEOMICS (AP3)

OVERCOMING LIMITATIONS OF GENETICS-BASED PRECISION MEDICINE

CORPORATE R&D EVENT

APRIL 24, 2024

FORWARD-LOOKING STATEMENTS

Certain information contained in this presentation includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 regarding our future results of operations or financial condition, business strategy and plans and objectives of management for future operations. In some cases, you can identify forward-looking statements because they contain words such as "anticipate," "believe," "contemplate," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "should," "target," "will," or "would" or the negative of these words or other similar terms or expressions. Our forward-looking statements are based primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition and results of operations. The outcome of the events described in the forward-looking statements is subject to risks and uncertainties, including the factors described in our filings with the U.S. Securities and Exchange Commission. New risks and uncertainties emerge from time to time, and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this presentation. The results, events, and circumstances reflected in the forward-looking statements may not be achieved or occur, and actual results, events, or circumstances could differ materially from those described in the forward-looking statements.

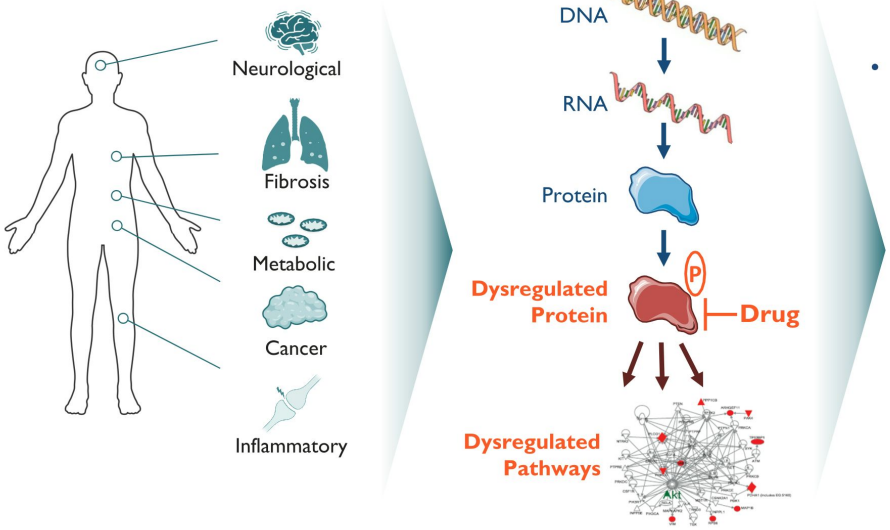
You are cautioned not to place undue reliance on these forward-looking statements, which are made only as of the date of this presentation. We undertake no obligation to update any forward-looking statements or to reflect new information or the occurrence of unanticipated events, except as required by law.

OUTLINE

- Acrivon Therapeutics and AP3 overview — 5 minutes
- Initial ACR-368 Phase 2 trial data — 25 minutes
- AP3-based drug design: Dual WEE1/PKMYT1 inhibitor ACR-2316 and pipeline — 20 minutes
- AP3 Interactome — 5 minutes
- Live Q&A — 20 minutes

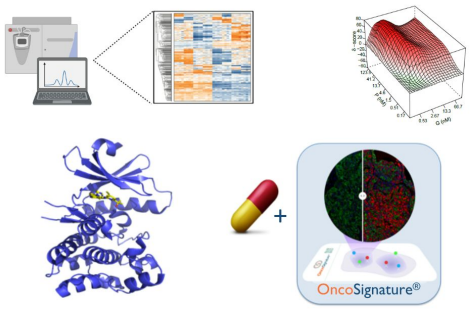
For a comprehensive corporate deck, please visit: https://Acrivon.com

ACRIVON THERAPEUTICS – A NEXT-GENERATION PRECISION MEDICINE COMPANY

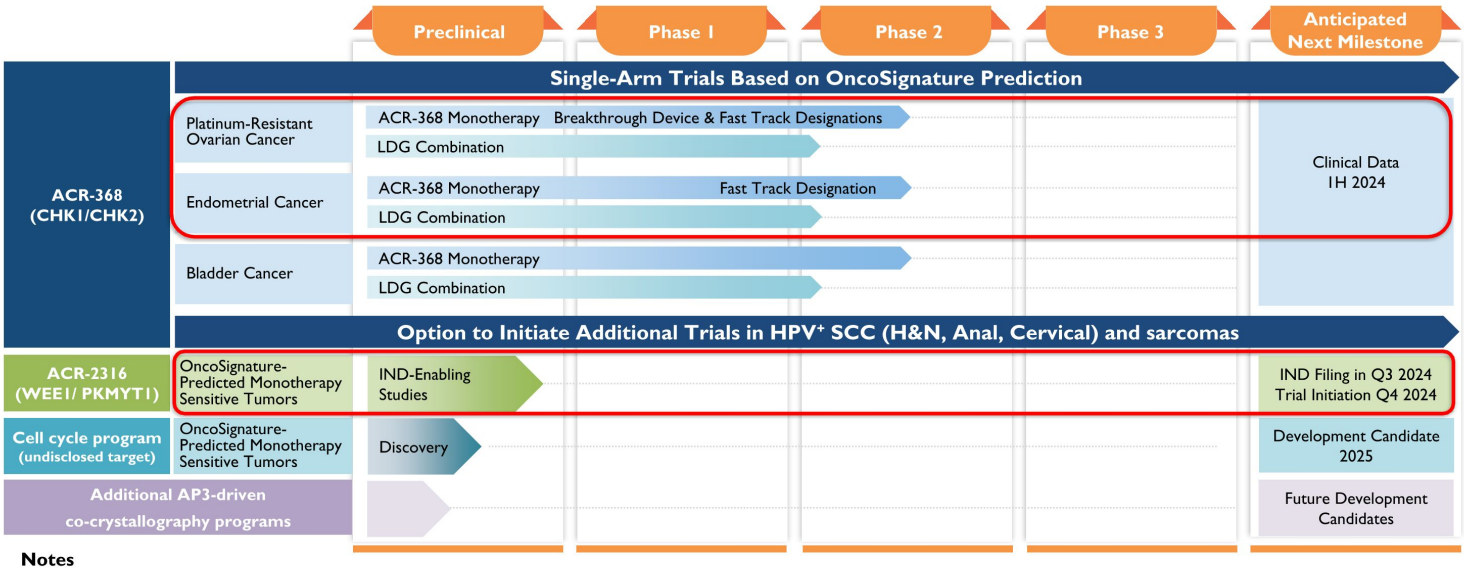


Acrivon Predictive Precision Proteomics (AP3)

- Enables an exact match between the disease-driving, dysregulated pathways with a drug's mechanism of action (Acrivon meaning ≈ exact, accurate)
- Broadly applicable in R&D (biological SAR, resistance, patient responders); leveraged for internal pipeline



ACRIVON PIPELINE



Notes

ACR-368 Monotherapy	Registrational intent Phase 2 single arm trials based on predicted sensitivity to ACR-368 monotherapy in OncoSignature-positive patients
LDG Combination	Exploratory Phase 1b/2 single arm trials of ACR-368 in combination with low dose gemcitabine, or LDG, in OncoSignature-negative patients

ACRIVON THERAPEUTICS – OVERVIEW

- Next-generation precision medicine; Foundational team pioneers in phosphoproteomics-based R&D

- AP3-based prospective patient responder identification
  - Acrivon in-licensed ACR-368 (Prexasertib) a Lilly flagship program (durable single agent activity across solid cancers, genomics insufficient for patient selection) with 3 key objectives
    1. Increase ORR in ovarian cancer using ACR-368 OncoSignature
    2. Identify and verify robust clinical activity in new indications (AP3 profiling)
    3. Validate our AP3 approach on a challenging drug to provide read through to other drugs (internal pipeline or external)
  - Initial data demonstrate POC for these objectives

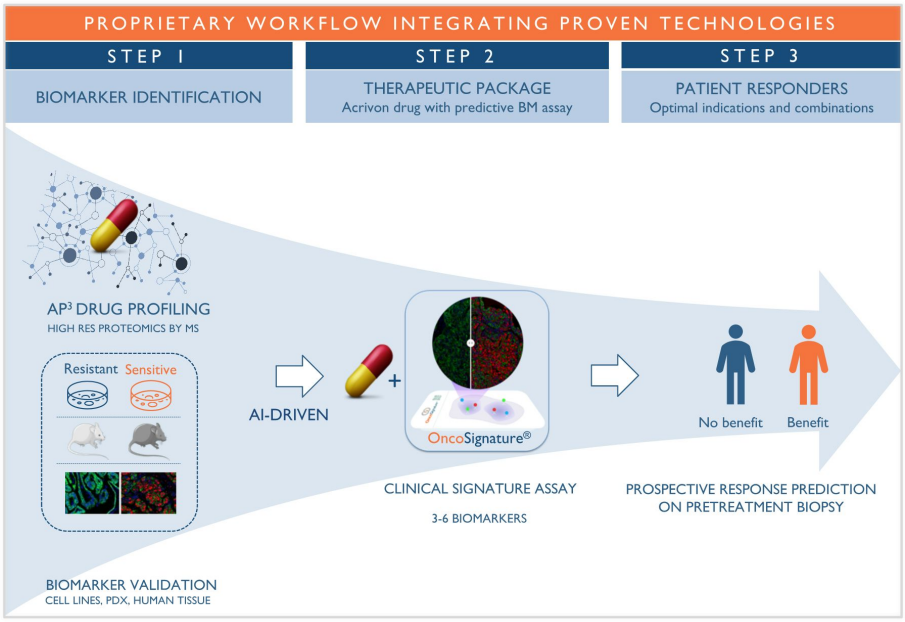
- AP3 applied for drug discovery - ACR-2316 and early pipeline
  - AP3 has generated a potent, single agent active WEE1/PKMYT1 development candidate (Biological SAR)
  - Specifically designed for clinical monotherapy development aiming for accelerated pathway
  - ACR-2316 OncoSignature being generated for indication finding prior to clinical development
  - AP3 has enabled streamlined preclinical development and accelerated timelines (IND filing now expected in Q3, 2024)
  - New potential first-in-class cell cycle program for an undisclosed target initiated following the same AP3 approach

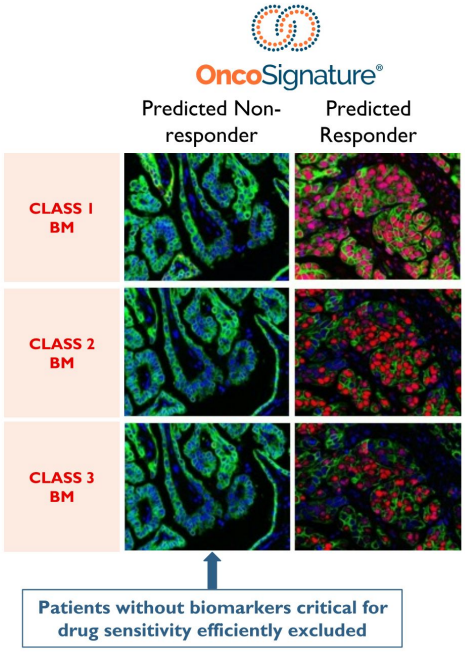
- AP3 interactome
  - Proprietary, integrated, ML-enabled compound profiling data (~50 million datapoints/2 wk)
  - Version 1.1.1 of AP3 interactome completed to be applied for AI-based drug discovery and development

Initial data from the ACR-368 prospective patient selection Phase 2 clinical trial in gynecological cancers

Data cut as of April 1, 2024

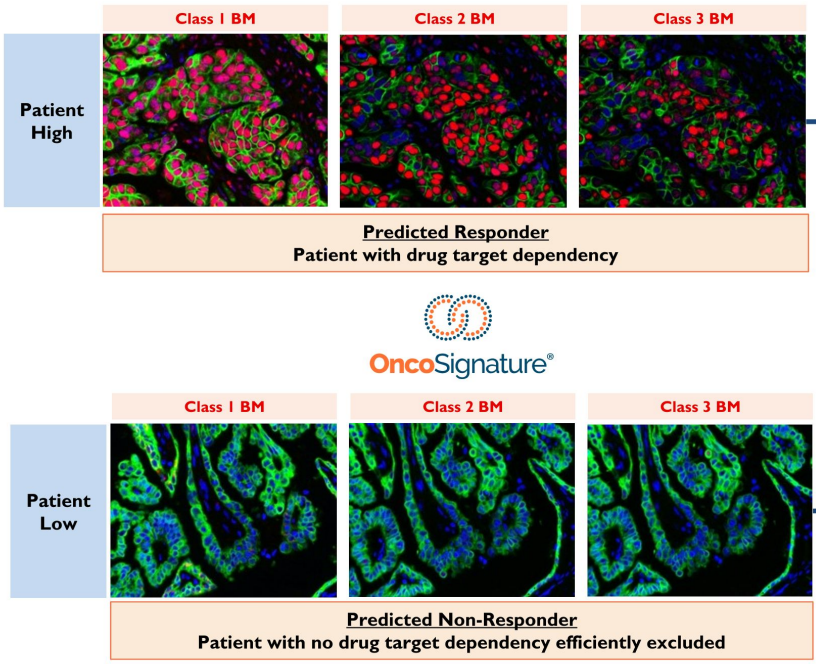
AP3 PLATFORM: DRUG RESPONSE PREDICTION IN INDIVIDUAL PATIENTS





"Disease Pathway-Based Method to Generate Biomarker Panels Tailored to Specific Therapeutics for Individualized Treatments": EP 2 229 589, issued June 10, 2015; US2017/0067877A9, pending. OncoSignature® *is a Registered Trademark: US Reg. No. 5,718,472; Int. Cl. 5, 42. Intl. Reg. 1382289*

ACR-368 ONCOSIGNATURE PREDICTION OF DRUG SENSITIVITY: BIOMARKER QUANTITATION ACROSS HUMAN CANCER PATIENT SAMPLES



Tissue ID.	BM1	BM2	BM3
Fov060265	0.69	0.79	0.73
Fov050855	0.94	0.71	0.67
Fov041300	0.89	0.23	0.55
Fov060380	0.95	0.62	0.51
Fov060050	0.85	0.23	0.51
Fov041285	0.69	0.19	0.5
Fov100142	0.47	0.76	0.47
Fov050764	0.82	0.22	0.47
Fov041267	0.4	0.36	0.36
Fov100146	0.84	0.57	0.26
Fov060382	0.44	0.45	0.22
Fov041269	0.37	0.21	0.2
Fov060302	0.29	0.22	0.15
Fov020067	0.89	0.38	0.09
Fov100003	0.9	0.89	0.08
Fov050700	0.17	0.17	0.07
Fov050139	0.63	0.66	0.05
Fov041138	0.36	0.11	0.05
Fov060152	0.24	0.3	0.03
Fov030062	0.57	0.14	0.02
Fov060133	0.94	0.43	0.01
Fov050666	0.93	0.38	0.01
Fov060371	0.88	0.93	0
Fov020497	0.61	0.43	0
Fov010706	0.54	0.14	0
Fov020386	0.11	0.09	0.12
Fov050734	0.11	0.06	0.08
Fov040872	0.23	0.04	0.36
Fov050659	0.29	0.01	0.02
Fov060293	0.42	0	0
Fov060210	0.1	0.1	0
Fov050840	0.07	0.29	0.01
Fov040855	0.05	0	0.22
Fov050816	0.04	0.33	0.12
Fov060355	0.04	0.27	0
Fov010252	0.03	0.17	0.02
Fov010682	0.03	0.03	0
Fov060553	0.03	0.02	0.03
71768C3	0.02	0	0
Fov150230	0	0.36	0.12
Fov060308	0	0	0

THERAPEUTIC BAR FOR HIGH GRADE PLATINUM-RESISTANT OVARIAN AND ENDOMETRIAL CANCER NEW APPROVALS

- Platinum-resistant ovarian cancer: ≥2nd line SOC* ~12% ORR, mDoR 3.7 – 5.7 months
  - Mirvetuximab: Post 1-3 prior lines, FRa-high PROC (~35% of patients; ORR ~35%, PFS = 5.6 months)
  - ~85% of patients with PROC do not benefit from mirvetuximab
- High grade endometrial cancer: ≥3rd line SOC** ~9% ORR, mDoR 3.1 months
- ACR-368 clinical activity (without patient selection) in past platinum-resistant ovarian trials: ~12% ORR, mDoR >5.6 months
  - (BRCA-mutant and BRCA wild type patients regardless # lines of prior therapy; Lilly-sponsored 46-center, 8-country, N=169 patient study)^

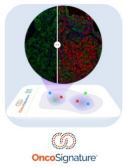
- TPP - high grade PROC: ≥25% ORR with CI lower bound >15%
- TPP - high grade endometrial cancer: ≥20-25% ORR with CI lower bound >15%

* Aurelia trial: Pujade-Lauraine E et al, JCO (2014); Corail trial: Gaillard S et al, JCO (2016)
** Ray-Coquard I et al, BJC (2013)
^ Konstantinopoulos P et al, Gyn Oncol. (2022)

ACR-368-201 STATUS – OVARIAN AND ENDOMETRIAL (LOCKED ONCOSIGNATURE THRESHOLDS, PROSPECTIVE TRIAL)

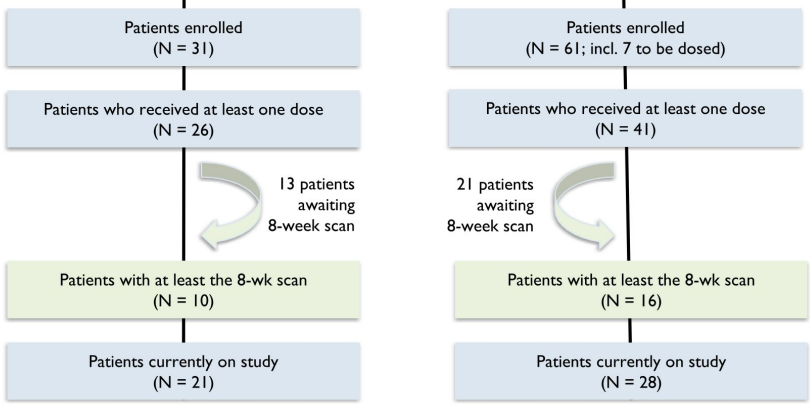
OncoSignature-positive
ACR-368 RP2D (105 mg/m^2)

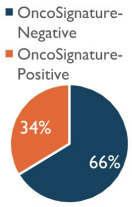
Registrational intent Phase 2



OncoSignature-negative
ACR-368 RP2D (105 mg/m^2) + ULDG RP2D (10 mg/m^2)

Exploratory Phase 1B/2

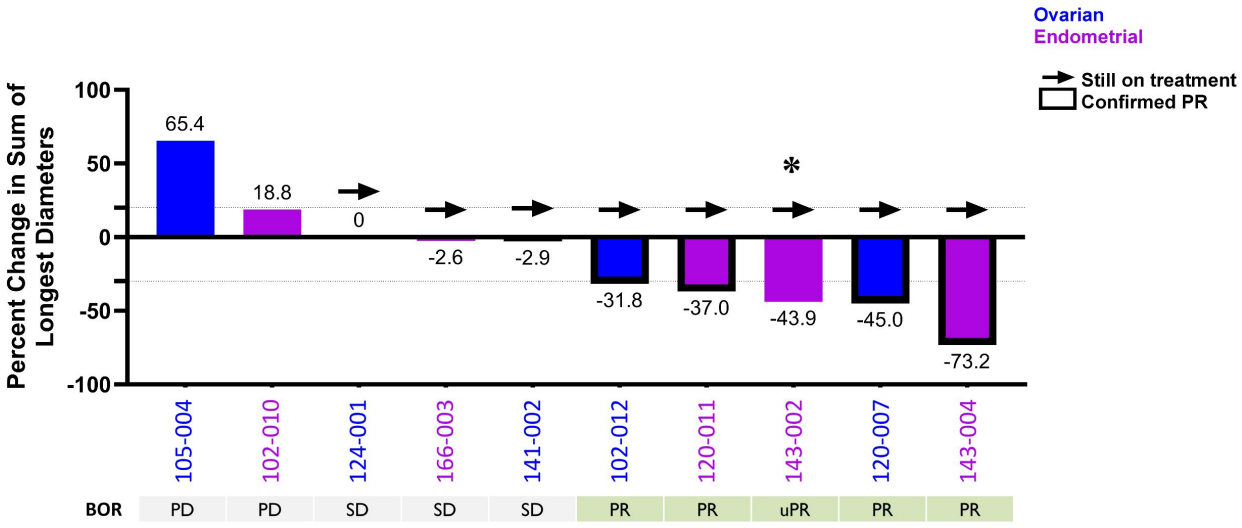




OncoSignature-positive rate =34%, consistent with predicted ~35% based on patient tumor sample OncoSignature screening prior to clinical trial

Data cut as of April 1, 2024

ONCOSIGNATURE+ GYN PATIENTS – TUMOR SHRINKAGE (LOCKED THRESHOLDS, PROSPECTIVE EVALUATION PER PROTOCOL)



BOR = Best overall response

*Since data cut off, the one unconfirmed PR has been confirmed bringing the total confirmed PRs to 5

Data cut as of April 1, 2024

ONCOSIGNATURE-POSITIVE PHASE 2 MONOTHERAPY GYN SUMMARY– PROSPECTIVE DATA WITH LOCKED THRESHOLDS

		Ovarian	Endometrial	Total
OncoSignature Positive (Arm 1)	PR (confirmed)	2	3	5
	SD	2	1	3
	PD	1	1	2
	Total	5	5	10
	ORR	40%	60%	50%

-Ovarian: The 95% CI^ for ORR = (12%, 77%). For reference, ovarian SOC ~12%.

-Endometrial: The 95% CI^ for ORR = (23%, 88%). For reference, endometrial SOC ~ 9%

All 5 confirmed responders on treatment; median DoR not reached

^ Agresti-Coull

Data cut as of April 1, 2024

ACR-368 ONCOSIGNATURE PROSPECTIVELY PREDICTS SENSITIVITY TO MONOTHERAPY IN ONGOING PHASE 2 TRIAL

ORR	BM+ (ARM 1) ACR-368 monotherapy	BM- (ARM 2) ACR-368 + ULDG	Patients (N)
Ovarian	40% (2/5)	0% (0/11)	16
Endometrial	60% (3/5)	0% (0/5)	10
Combined	50% (5/10)	0% (0/16)	26

P value (confirmed PRs) = 0.0038

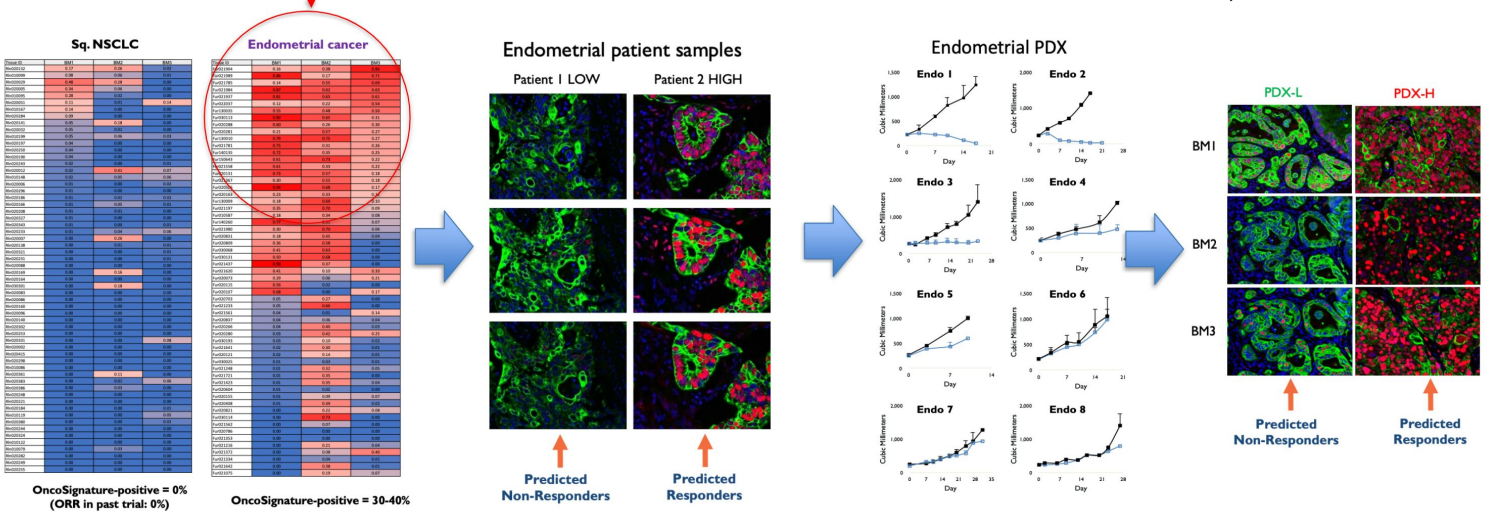
Notes:

- (non-parametric bootstrap simulation and Fisher test BM+ vs BM-)
- ORR in ovarian all-comer = 12.5%, which is consistent with JTJN study (12%)

Data cut as of April 1, 2024

ENDOMETRIAL CANCER IS AN AP3-PREDICTED TUMOR TYPE

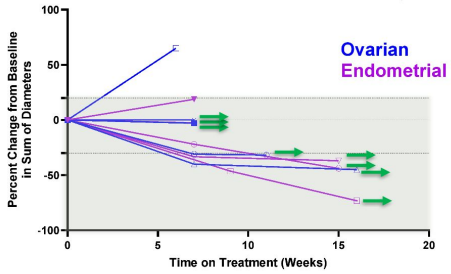
ACR-368 OncoSignature-based indication finding prior to trial entry → ACR-368 OncoSignature imaging demonstrates addiction to CHK1/2 DDR axis → Confirmation of predicted sensitivity in genetically non-modified PDX models → Confirmation of ACR-368 OncoSignature prediction in PDX tumor tissues pretreatment



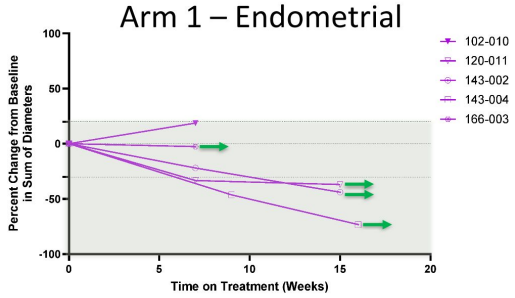
in >1,000 cancer patients treated with ACR-368 in Lilly-sponsored trials, endometrial cancer was not tested

ONCOSIGNATURE+ (ARM 1) SPIDER PLOTS – LOCKED THRESHOLDS

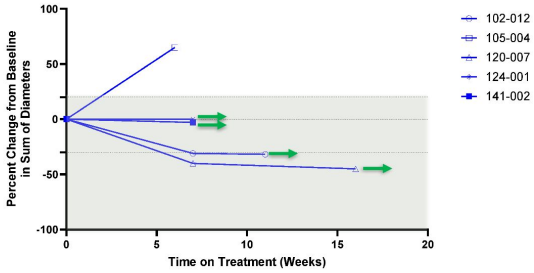
Arm 1 – All GYN Subjects



Arm 1 – Endometrial



Arm 1 – Ovarian



→ Still on treatment

Note: mDoR established in past Phase 2 ACR-368 monotherapy RP2D trials (>200 patients) is between 5.6 months to >10 months (Konstantinopoulos et al, Gyn Oncol (2022); Lee et al, Lancet Oncology (2018))

Data cut as of April 1, 2024

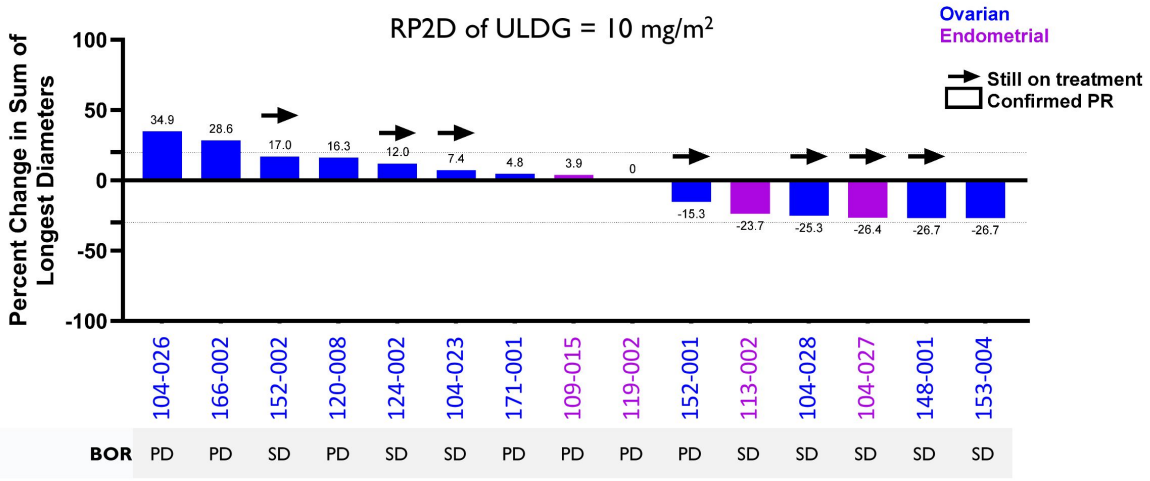
ONCOSIGNATURE-NEGATIVE SUMMARY (GYN INDICATIONS)
– *PROSPECTIVE DATA WITH LOCKED THRESHOLDS*

Clear ULDG sensitization and activity (see waterfall plot), but no PRs to date with locked thresholds

		Ovarian	Endometrial	Total
OncoSignature Negative (Arm 2)	PR			
	SD	6	2	8
	PD	5	3	8
	Total	11	5	**16**
	ORR	0%	0%	0%

Data cut as of April 1, 2024

ONCOSIGNATURE-NEGATIVE (ARM 2)- BEST OVERALL RESPONSE (LOCKED THRESHOLDS, PROSPECTIVE EVALUATION)



BOR = Best overall response; One PD subject censored for lack of target lesion data points available in EDC

Data cut as of April 1, 2024

TREATMENT-RELATED ADVERSE EVENTS BY INDICATION – ONCOSIGNATURE-POSITIVE (ARM 1)

Treatment-related AEs in >15% of subjects, locked thresholds; RP2D (ACR-368 105 mg/m²)

ARM 1	Endometrial		Ovarian		Urothelial		ALL (Arm 1)	
	N = 7		N = 14		N = 2		N = 23	
	All	Gr 3/4	All	Gr 3/4	All	Gr 3/4	All	Gr 3/4
Anemia	2 (29)	2 (29)	8 (57)	2 (14)	1 (50)	0 (0)	11 (48)	4 (17)
Fatigue	2 (29)	1 (14)	3 (21)	0 (0)	1 (50)	0 (0)	6 (26)	1 (4)
Nausea	3 (43)	0 (0)	2 (14)	0 (0)	2 (100)	0 (0)	7 (30)	0 (0)
Thrombocytopenia	0 (0)	0 (0)	2 (14)	2 (14)	0 (0)	0 (0)	2 (9)	2 (9)
Neutropenia	0 (0)	0 (0)	1 (7)	1 (7)	0 (0)	0 (0)	1 (4)	1 (4)
Febrile Neutropenia	0 (0)	0 (0)	2 (14)	2 (14)	0 (0)	0 (0)	2 (9)	2 (9)

Data represented as number of subjects (% of subjects); Non-QC'd data, as of 8 March 2024

AE profile predominantly heme, consistent with previous monotherapy trials at RP2D

TREATMENT-RELATED ADVERSE EVENTS BY INDICATION – ONCOSIGNATURE-NEGATIVE (ARM 2)

Treatment-related AEs in >15% of subjects, locked thresholds, RP2D (ACR-368 105 mg/m^2; ULDG = 10 mg/m^2)

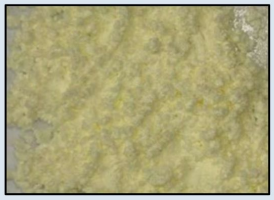
ARM 2	Endometrial		Ovarian		Urothelial		ALL (Arm 2, 10 mg/m^2 Gem)	
	N = 11		N = 22		N = 5		N = 38	
	All	Gr 3/4	All	Gr 3/4	All	Gr 3/4	All	Gr 3/4
Anemia	2 (18)	2 (18)	10 (45)	3 (14)	3 (60)	1 (20)	15 (39)	6 (16)
Fatigue	1 (9)	0 (0)	9 (41)	2 (9)	1 (20)	0 (0)	11 (29)	2 (5)
Nausea	1 (9)	0 (0)	6 (27)	0 (0)	1 (20)	0 (0)	8 (21)	0 (0)
Thrombocytopenia	2 (18)	1 (9)	3 (14)	2 (9)	4 (60)	2 (40)	9 (24)	5 (13)
Neutropenia	0 (0)	0 (0)	5 (23)	5 (23)	3 (60)	3 (60)	8 (21)	8 (21)
Febrile Neutropenia	1 (9)	1 (9)	4 (18)	4 (18)	1 (20)	1 (20)	6 (16)	6 (16)

Data represented as number of subjects (% of subjects); Non-QC'd data, as of 8 March 2024

AE profile predominantly heme, consistent with previous monotherapy trials at RP2D

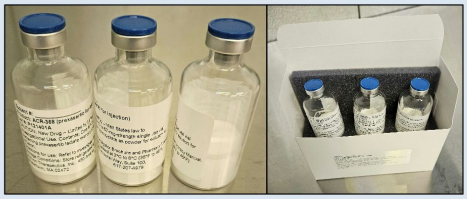
ACR-368 MANUFACTURING STATUS

Active Pharmaceutical Ingredient



- Registration and validation campaigns complete with release of all batches
- 21.9 kg of GMP API in stock (enough for >100k doses)

Drug Product

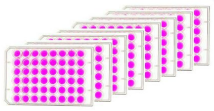


- Registration campaign complete with all three batches released and yield ~95%

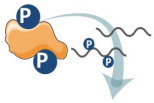
AP3-based drug design: ACR-2316, a potential first-in-class, dual WEE1/PKMYT1 inhibitor and pipeline

STREAMLINED AP3-BASED BIOLOGICAL SAR OPTIMIZATION FOR SINGLE AGENT ACTIVITY OF PRECLINICAL PROGRAMS

Drug treatment

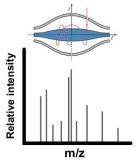


Proteolysis
P-peptide enrichment



Peptide clean up

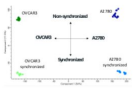
Ultra high resolution
P-proteomic profiling



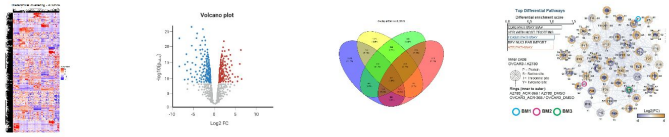
Direct DIA analysis

High resolution and throughput MS-based P-proteomics

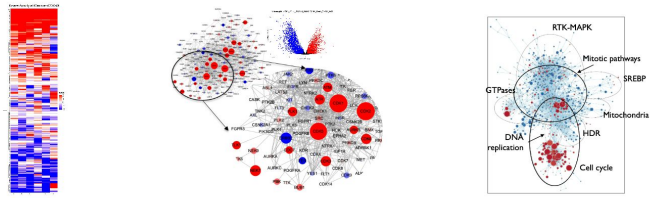
Quantitative mapping (>35,000 phospho-sites covering >4,500 proteins)



Drug-regulated phospho-sites and biological process enrichment



Drug-regulated pathway activity mapping and reconstitution



Proprietary pipe for automated AP3 analyses with actionable results

Week 0

Turnaround <2 weeks

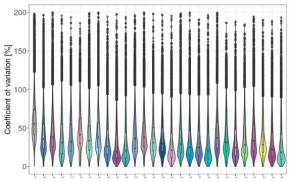
Week 2

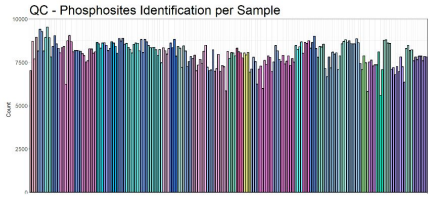
AP3: TIGHT, HIGH-RESOLUTION DATA WITH DEEP COVERAGE

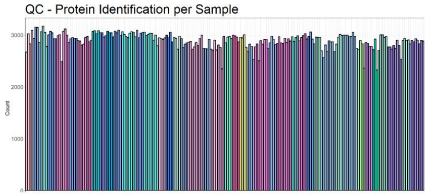
35388 p-sites

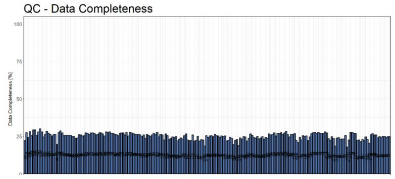
15733 p-sites

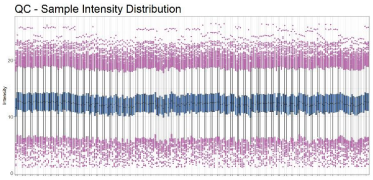
QC MS Data → Data Clean Up → QC Processed Data → Volcano Plots → Hierarchical Clustering → Consensus Sequence Motif → Kinase Inference → Pathway Enrichment → Functional Annotation → Network Mapping → Biomarkers

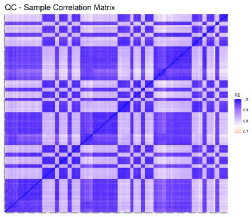












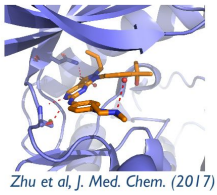
- ✓ Acrivon proprietary compound data (~50 million data points per experiment); dozens of compounds profiled
- ✓ Miniaturized, high throughput, scalable: <2 weeks turn-around, automated AI computational analyses in 1 day
- ✓ Actionable results: Resistance mechanisms, rational combinations, drug-tailored OncoSignature patient selection

ACR-2316 –UNIQUELY ENABLED BY AP3 TO OVERCOME LIMITATIONS OF CURRENT WEE1 AND PKMYT1 INHIBITORS

Program goals:

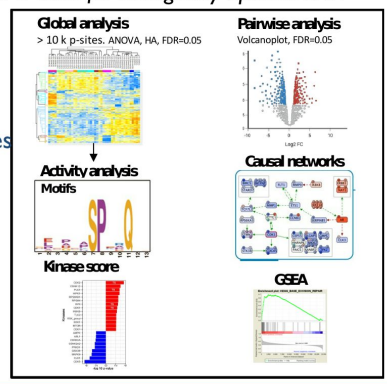
- **Superior single agent activity (AP3)**
  - AP3-guided design to overcome WEE1 and PKMYT1 single inhibitor resistance through balanced dual inhibition
- **High selectivity and potency (co-crystallography)**
  - Structure-guided design to limit adverse events (AEs) to be on-target, transient, mechanism-based
- **Streamlined clinical development (ACR-2316 OncoSignature)**
  - To identify/prioritize sensitive indications prior to clinical start and for drug target engagement-based dose optimization

Co-crystallography for drug design and selectivity



Zhu et al, J. Med. Chem. (2017)

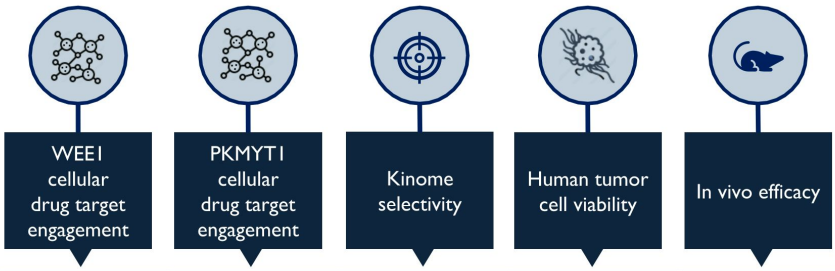
AP3 used for biologically optimal SAR



ACR-2316: Rationally designed WEE1/PKMYT1 development candidate

- ✓ AP3-based SAR from >40 co-crystals (1.5-3.1 Å) of novel WEE1/PKMYT1-selective series
- ✓ 5-20-fold more potent in preclinical models than clinical benchmarks
- ✓ Superior anti-tumor efficacy with complete tumor regression across models
- ✓ High selectivity ensures transient, short-lived, mild AEs
- ✓ Potent WEE1 inhibition, balanced PKMYT1 inhibition, overcomes resistance

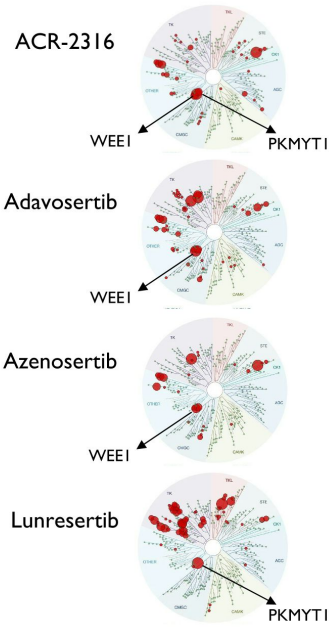
ACR-2316 SHOWS ATTRACTIVE PROFILE IN ONGOING PRECLINICAL STUDIES



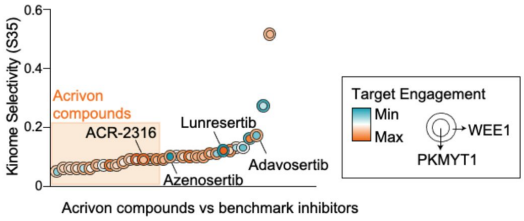
Relative performance	WEE1 cellular drug target engagement	PKMYT1 cellular drug target engagement	Kinome selectivity	Human tumor cell viability	In vivo efficacy
ACR-2316	**++++**	**++**	**++++**	**++++**	**++++**
Adavosertib	++	-	++	+++	++
Azenosertib	++	-	+++	++	++
Debio0123	+	-	++++	+	+
Lunresertib	-	+++	+	+	+

DUAL WEE1/PKMYT1 INHIBITOR ACR-2316 DEMONSTRATES STRONG POTENCY AND SELECTIVITY

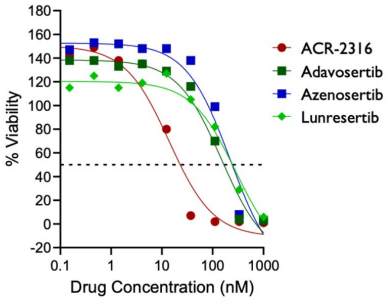
KinomeScan (468 kinases @ 1μM)



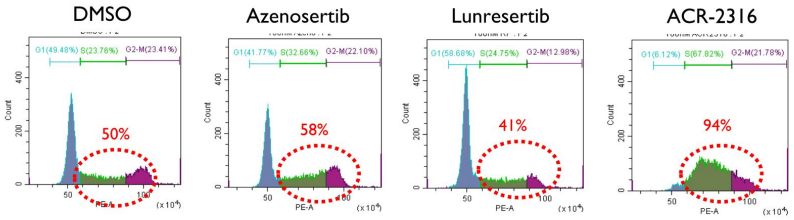
ACR-2316 is highly selective (KinomeScan)



ACR-2316 potently inhibits cancer cell viability



ACR-2316 exerts potent cell cycle effects with pronounced S-G2/M accumulation

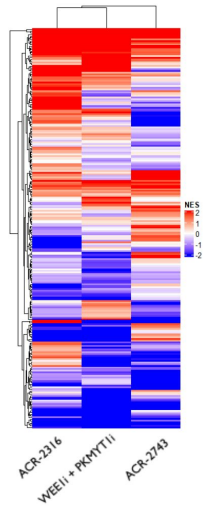


100 nM, 24 hour

OPTIMIZED DUAL INHIBITORS SHOW DESIRABLE PATHWAY EFFECTS

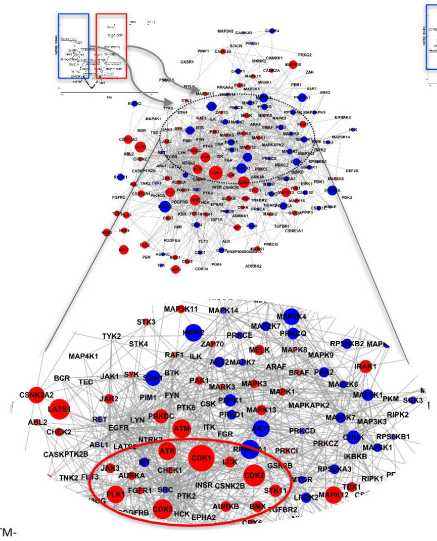
Optimized dual WEE1 and PKMYT1 inhibitors affect cell cycle and canonical MAPK pathways in desirable manner

Substrate motif-inferred kinase activities

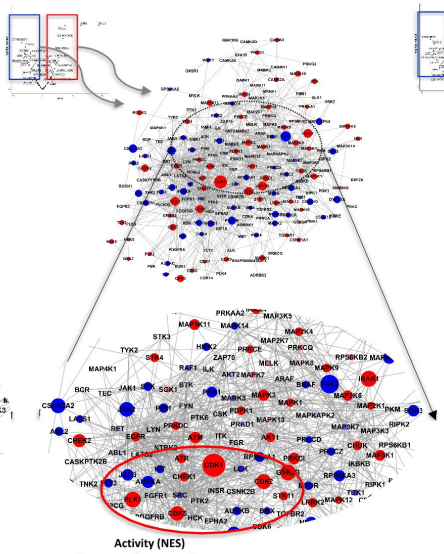


Kinase activity based on proprietary PTM-SEA-based hybrid workflow and analyses

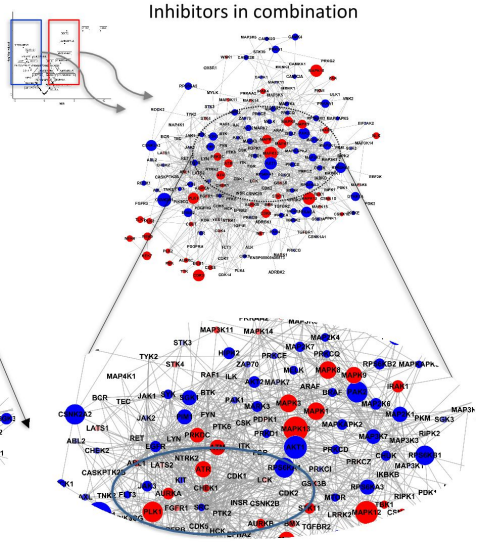
ACR-2316



ACR-2743

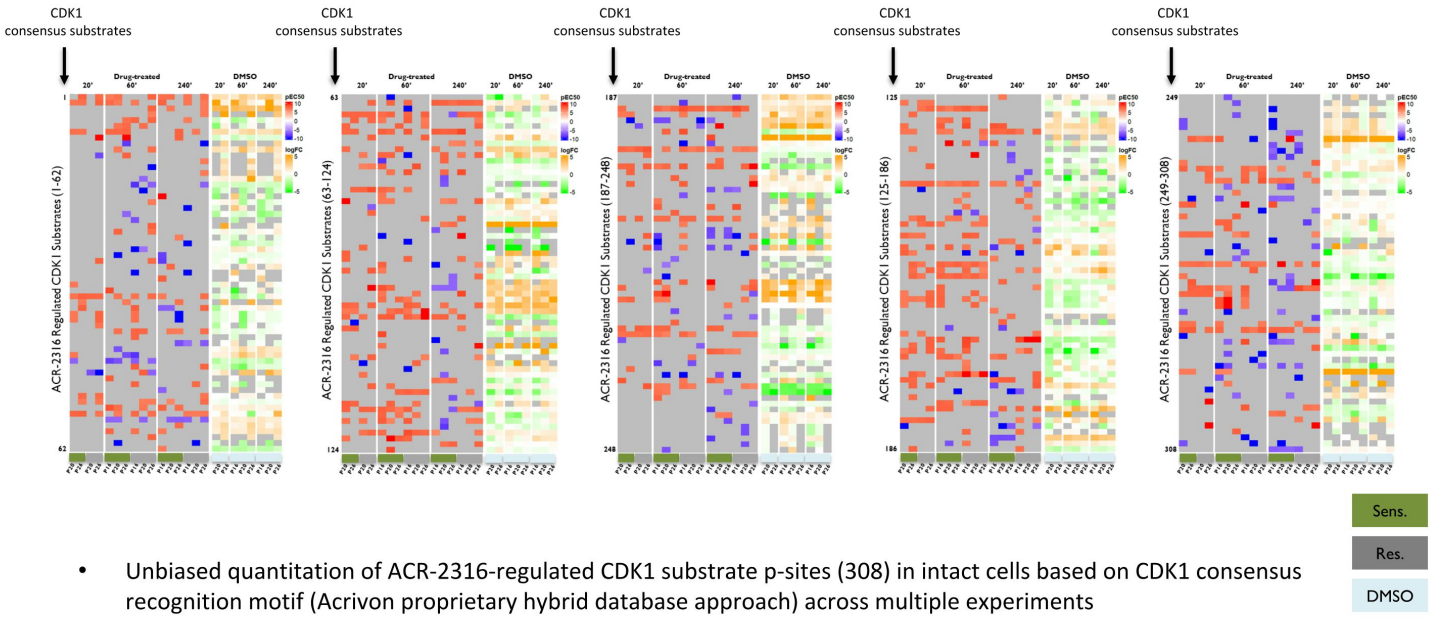


Benchmark* WEE1 + PKMYT1 Inhibitors in combination



*Clinical-stage selective WEE1 and PKMYT1 inhibitors

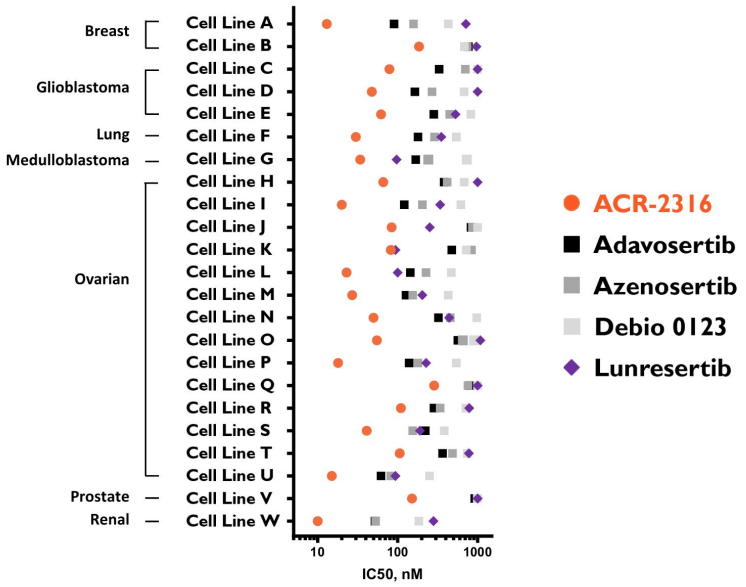
ACR-2316 POTENTLY ACTIVATES CDK1, REGULATING >300 CDK1 CONSENSUS SUBSTRATES AND DRIVING MITOTIC CATASTROPHE



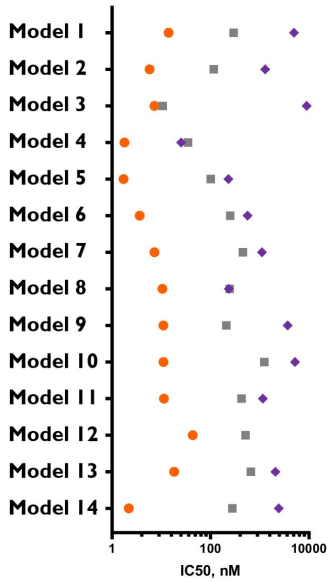
- Unbiased quantitation of ACR-2316-regulated CDK1 substrate p-sites (308) in intact cells based on CDK1 consensus recognition motif (Acrivon proprietary hybrid database approach) across multiple experiments
- Actionable insight into drivers of mitotic catastrophe and on-target CDK1-driven pathways

ACR-2316 IS HIGHLY POTENT ACROSS HUMAN TUMOR CELL LINES AND PATIENT-DERIVED *EX VIVO* TUMOR MODELS

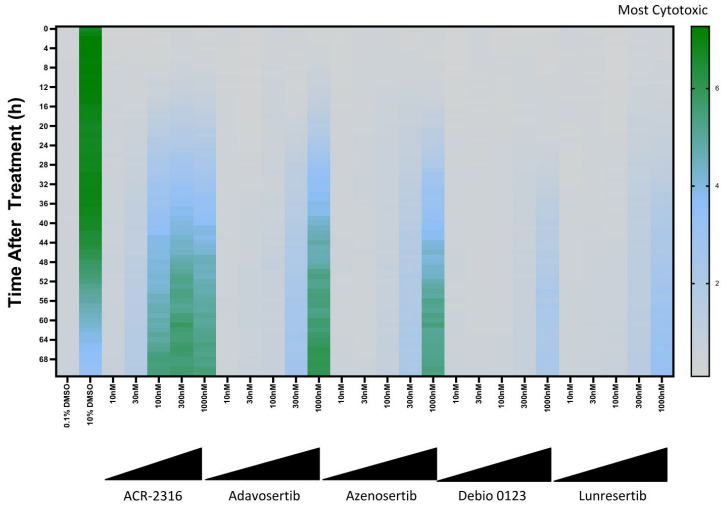
Human tumor cell lines

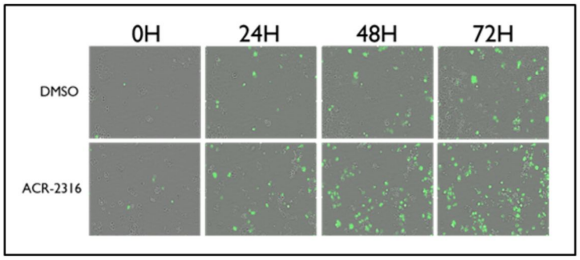


Patient-derived *ex vivo* tumor models



ACR-2316 INDUCES POTENT CELL DEATH COMPARED TO BENCHMARK WEE1 AND PKMYT1 INHIBITORS

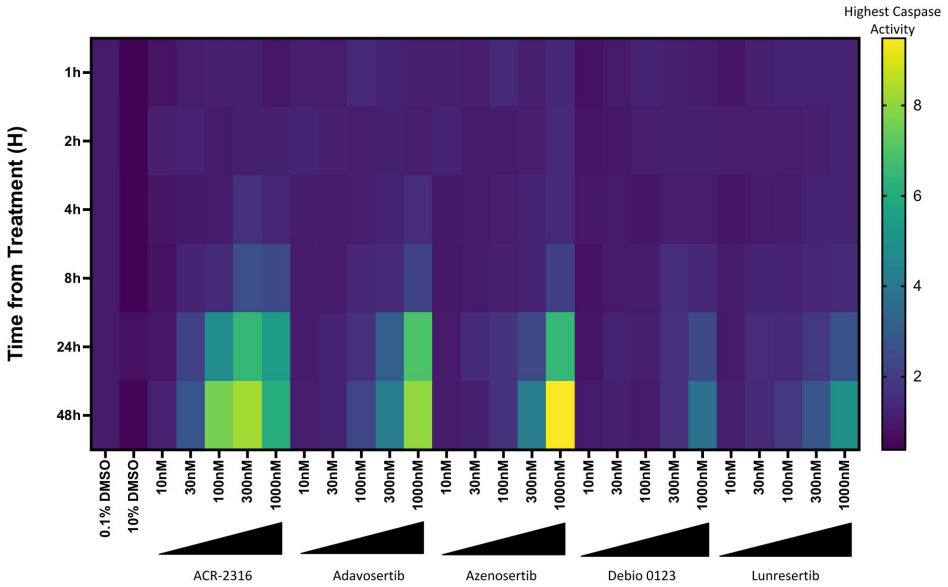




Representative images of human tumor cells treated with 100 nM ACR-2316 vs control vehicle (green fluorescence = dead cells

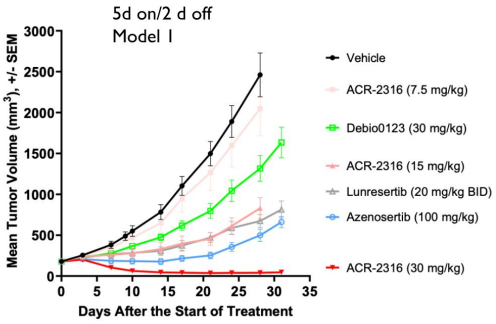
CellTox-Green Assay

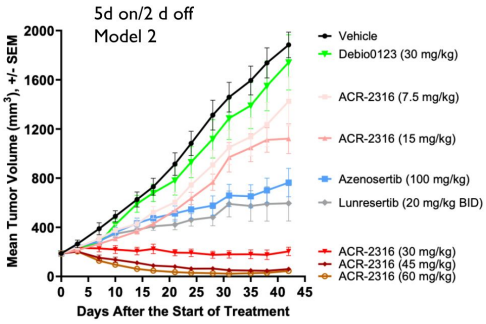
ACR-2316 INDUCES POTENT CASPASE 3/7 CLEAVAGE COMPARED TO BENCHMARK WEE1 OR PKMYT1 INHIBITORS

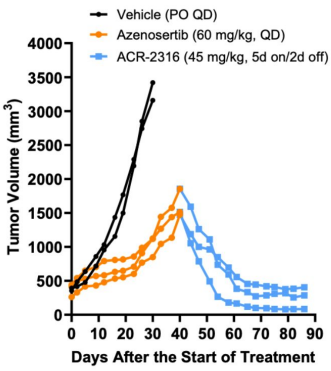


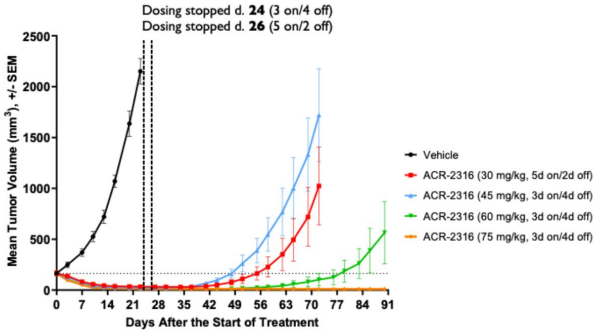
Caspase 3/7-Glo Assay

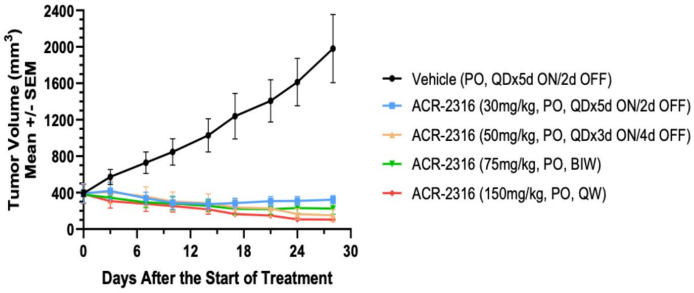
ACR-2316 INDUCES COMPLETE TUMOR REGRESSION ACROSS MODELS AND DOSING REGIMENS











EXPEDITING ACR-2316 TOWARDS CLINICAL MONOTHERAPY DEVELOPMENT

A novel, AP3-enabled, internally discovered dual WEE1 / PKMYT1 inhibitor

Rational Design

- Optimized via AP3
- AP3-enabled design for optimized single agent activity

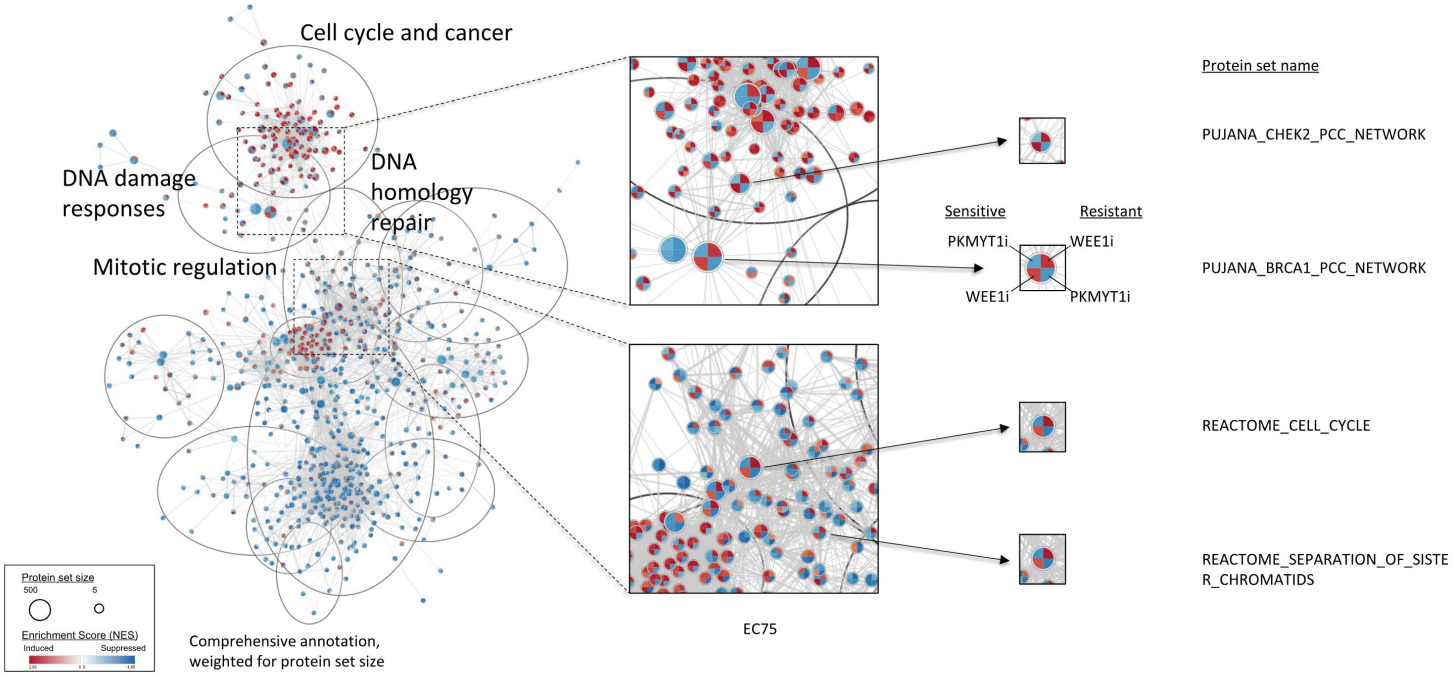
Superior Profile

- Potent anti-tumor activity across human tumor cell lines and in tumor-bearing mice vs benchmarks

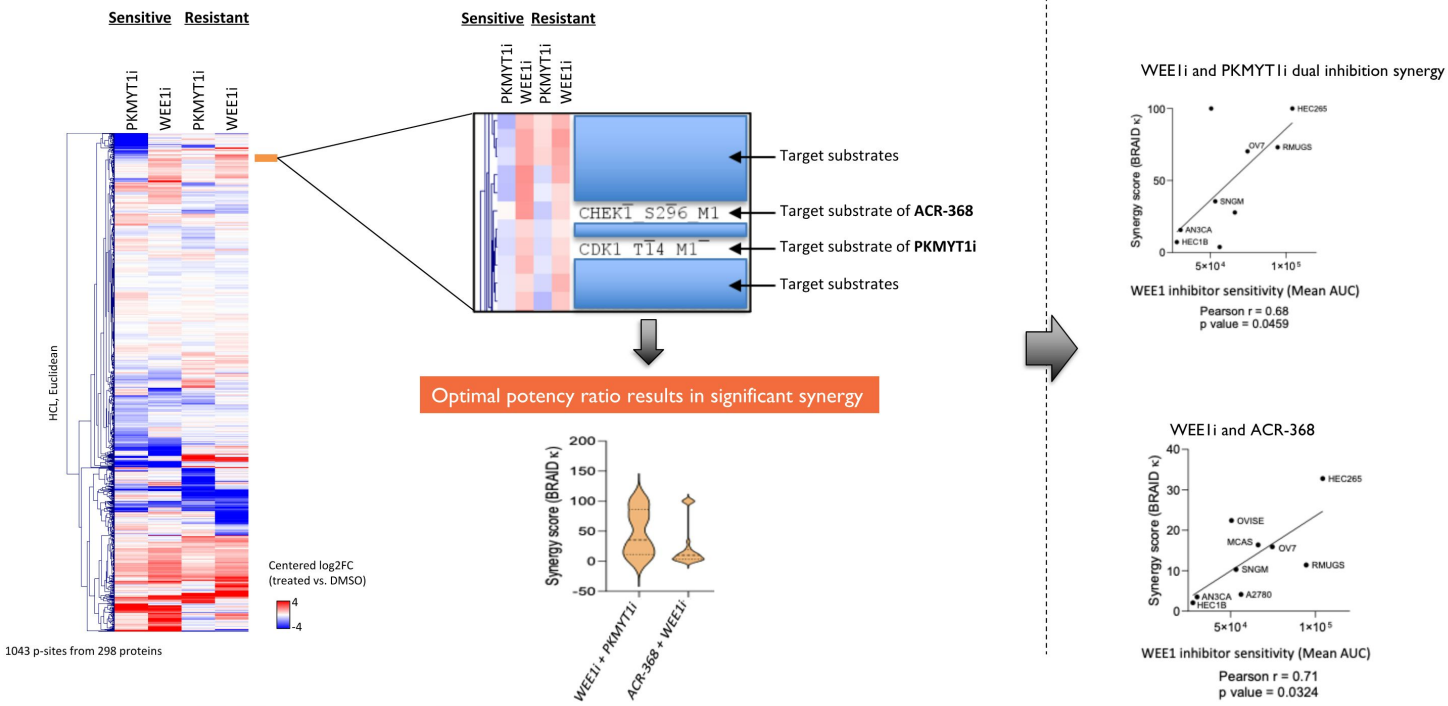
Streamlined Development

- Aiming for expedited monotherapy development
- Advancing towards IND in Q3, 2024, FIH in Q4, 2024
- OncoSignature test in development for indication finding
- Dose optimization to be guided by drug target engagement (BM2)

AP3-DERIVED DUAL POTENCY OPTIMIZATION TO OVERCOME WEE1 INHIBITOR RESISTANCE: RECIPROCAL QUENCHING



AP3 RECIPROCAL QUENCHING REVEALS OPTIMAL TARGET POTENCY PROFILE FOR DUAL WEE1/PKMYT1 INHIBITOR



AP3 INTERACTOME V.1: PROPRIETARY INTERACTIVE DATA ANALYSIS INFRASTRUCTURE

Actionable data across all AP3 experiments accessible for all Acrivon scientists
Fully scripted, algorithm-based machine-learning enabled pathway and biomarker analyses

50,000 phosphosites

20,000 phosphosites

Data completeness Peptide IDs CV

Pearson Correlation

PCA Hierarchical Clustering

Filtering Batch effects Normalization Imputation

ANOVA Hierarchical clustering

DEPs Volcano Plots

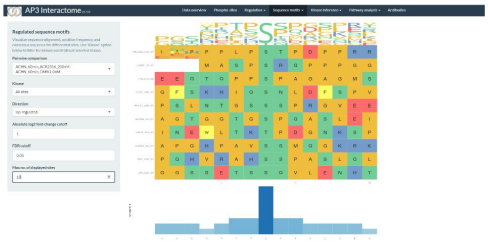
Consensus Sequence Motif

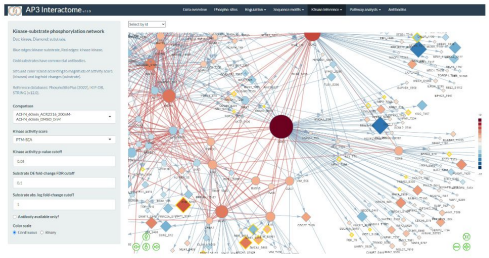
Pathway Enrichment

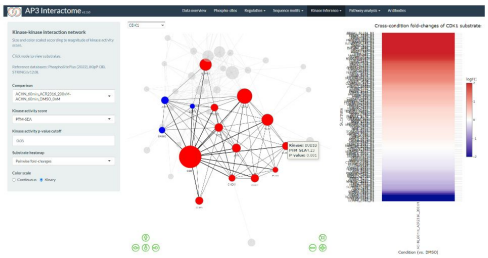
Kinase Inference

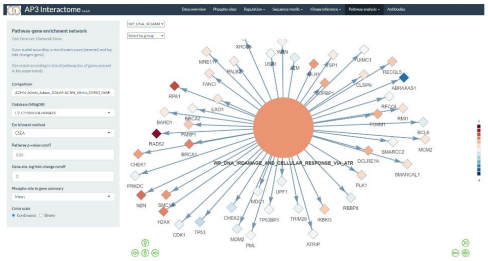
Network Mapping

Biomarkers



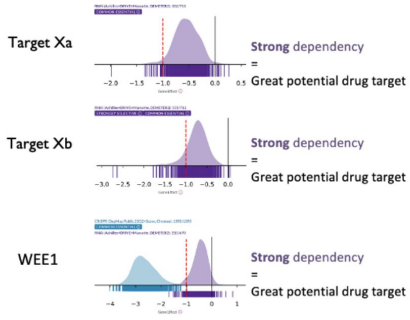




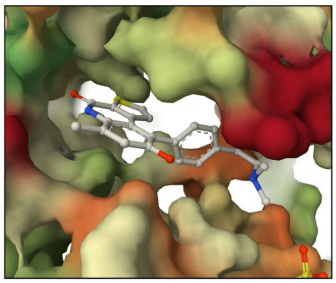


CELL CYCLE REGULATORY PIPELINE PROGRAM (UNDISCLOSED TARGET)

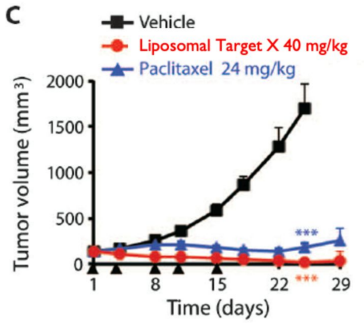
- Target X – an exciting cancer drug target, no/minimal competitor programs, perfectly suited for AP3 platform
- DepMap data suggest suggest target X is an essential gene for cancer cell viability
- Strong mechanistic target rationale for role in oncogenesis
- Highly selective tool compound shows strong anti-tumor efficacy in rodent models
- Tool compound AP3 profiling supports selectivity
- New preclinical program leveraging co-crystallography and AP3 infrastructure successfully built for ACR-2316



Genetic dependency analysis across CCLE (n > 700)



Tool compound is a selective target X inhibitor
(originally believed to be inhibitor for another target)



Development candidate 2025

FINANCIAL HIGHLIGHTS – MARCH 31, 2024 PRO-FORMA

Cash and marketable securities

~$234M

Pro-forma as of Mar-31-2024
Including net proceeds from recent PIPE

Projected runway into

H2'26

Current operating plan, including PIPE
Not including additional financing

Fully Diluted Shares Outstanding

~43.8M

Pro-forma as of Mar-31-2024
Including shares and pre-funded warrants issued with recent PIPE

Note: Unaudited

KEY TAKE-AWAYS

Initial clinical data (cut-off date April 1, 2024) have demonstrated prospective validation of our AP3 platform and our key objectives

- 50% confirmed overall response rate observed in patients with OncoSignature-positive gynecological (ovarian and endometrial) cancers
  - Enrichment of ORR in ovarian cancer (40% confirmed ORR)
  - AP3-based prediction of endometrial cancer to be sensitive to ACR-368 now proven with clinical data and confirmed ORR of 60%
  - All 5 confirmed responders still on treatment, with mDoR not yet reached

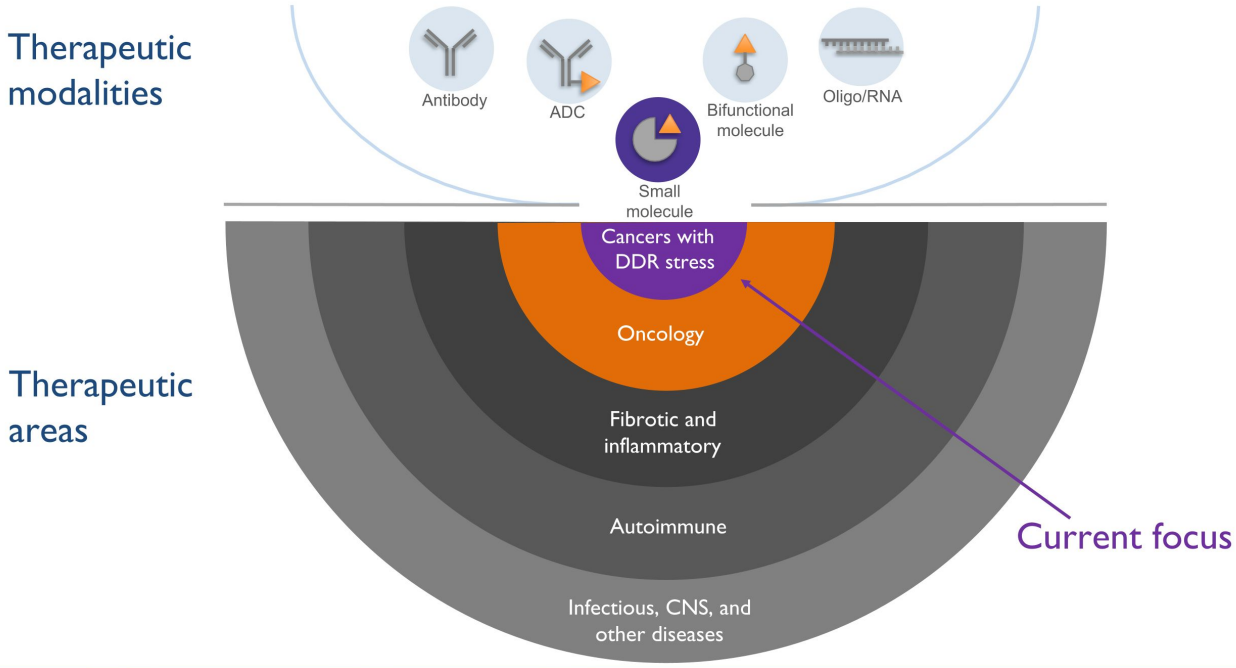
- Initial, prospective validation of the AP3-based ACR-368 OncoSignature assay has demonstrated clear segregation of RECIST responders in the OncoSignature-positive versus OncoSignature-negative arms (*p-value*=0.0038)

Streamlined AP3-based drug design - ACR-2316, our internally-discovered dual WEE1/PKMYT1 inhibitor

- Demonstrated superior single agent activity in preclinical studies compared to clinical benchmarks
- Accelerated timelines with anticipated IND filing in Q3 and first-in-human in Q4, 2024

Pro-forma cash and marketable securities ~$234M with runway projected to second half of 2026

THE AP3 APPROACH IS MODALITY AND DISEASE AGNOSTIC



- **Q&A session**

Acrivon Therapeutics Reports Initial Positive Clinical Data for ACR-368 and Pipeline Program Progress Today at Corporate R&D Event

- Initial ACR-368 Phase 2b clinical data in patients with ovarian or endometrial cancers (n=26; 10 OncoSignature-positive and 16 OncoSignature-negative) are being presented
- A 50% confirmed overall response rate observed with ACR-368 in OncoSignature-positive gynecological (ovarian and endometrial) cancers
- Initial clinical validation of AP3 patient selection platform, demonstrated ability to prospectively predict ACR-368 RECIST responders (*p-value* = 0.0038)
- ACR-2316, a potential first-in-class dual WEE1/PKMYT1 inhibitor, IND timeline accelerated with filing now expected in Q3 2024
- Acrivon hosts Corporate R&D event webcast today at 4:15 pm ET

WATERTOWN, Massachusetts, April 24, 2024 – Acrivon Therapeutics, Inc. ("Acrivon" or "Acrivon Therapeutics") (Nasdaq: ACRV), a clinical stage biopharmaceutical company developing precision oncology medicines that it matches to patients whose tumors are predicted to be sensitive to each specific medicine by utilizing its proprietary proteomics-based patient responder identification platform, Acrivon Predictive Precision Proteomics (AP3), to host a corporate R&D event. The company plans to present initial positive clinical data from the ongoing registrational-intent Phase 2 ACR-368 clinical trials, which showed prospective validation of the proprietary ACR-368 OncoSignature patient selection biomarker test with a 50% confirmed objective response rate (ORR) in patients with ovarian and endometrial cancers. Acrivon is also sharing new preclinical data for ACR-2316, now with accelerated IND filing timelines, as well as actionable findings with the machine learning-enabled AP3 platform.

"Today we present initial clinical data from our ongoing Phase 2 clinical trial which we believe highlights the power of our next generation proteomics-based AP3 precision medicine platform," said Peter Blume-Jensen, M.D., Ph.D., chief executive officer, president, and founder of Acrivon Therapeutics. "For the first time, we share statistically significant prospective validation of our AP3 patient selection approach via our ACR-368 OncoSignature assay, which demonstrated the ability to effectively identify cancer patients whose tumors are likely to respond to ACR-368 monotherapy treatment. We are extremely gratified to not only confirm the ability to identify and enrich for patient responders with ovarian cancer, but also for patients with endometrial cancer, a new tumor type identified and predicted to be sensitive to ACR-368 by our AP3 platform prior to clinical trial initiation."

"Today's R&D event provides us an opportunity to present the compelling preclinical data of our AP3-based, rationally-designed ACR-2316 dual WEE1/PKMYT1 inhibitor," said Kristina Masson, Ph.D., M.B.A., co-founder and executive vice president of business operations at Acrivon

Therapeutics, Inc. and president and CEO of the company´s research subsidiary Acrivon AB. “We are excited to announce our accelerated timelines for IND filing, now expected in the third quarter with potential clinical study initiation now anticipated in the fourth quarter of this year. We believe this potential first-in-class asset, which is specifically designed for superior single-agent activity as demonstrated in preclinical studies against benchmark inhibitors, has the potential to address significant unmet treatment needs against a broad range of tumors in patients with limited treatment options.”

Company Provides Program and Data Highlights:

- An overview of the broad, actionable scientific capabilities and clinically demonstrated deliverables of the AP3 platform
- Initial ACR-368 clinical data in patients with ovarian or endometrial cancers (n=26; 10 OncoSignature-positive and 16 OncoSignature-negative) in the ongoing registrational-intent Phase 2b trial are being presented (data cut as of April 1, 2024).
    - A confirmed ORR (per RECIST 1.1) of 50% was observed in the prospective cohort of OncoSignature-positive patients who were efficacy-evaluable. All confirmed responders continue to be on treatment, median duration of response (DoR) has not yet been reached. Notably, endometrial cancer is a new tumor type with significant unmet medical need that was identified and predicted to be sensitive to ACR-368 by AP3 indication screening.
    - Initial, prospective validation of the AP3-based ACR-368 OncoSignature assay demonstrating its ability to identify ovarian and endometrial patients sensitive to ACR-368 monotherapy in the ongoing clinical trial, with clear segregation of RECIST responders in the OncoSignature-positive (50% confirmed ORR in 10 patients) versus OncoSignature-negative (0% ORR in 16 patients) arms (*p-value*=0.0038).
    - In the OncoSignature-negative arm with ovarian or endometrial cancers, encouraging signs of clinical activity were observed in response to ACR-368 with ultra-low dose gemcitabine at the recommended Phase 2 combination dose, with 8 out of 16 patients achieving stable disease.
    - Consistent with past trials, the ACR-368 treatment-related adverse event profile was predominantly reversible and transient with only mechanism-based, hematological adverse events.
- ACR-2316, a potential first-in-class, potent WEE1/PKMYT1 inhibitor continues to advance rapidly with IND filing now expected in Q3 2024 (vs. previous guidance of Q4 2024) and the initiation of a clinical trial is anticipated in Q4 2024. ACR-2316 is uniquely designed by AP3 for superior single-agent activity and to overcome limitations of current WEE1 inhibitors and PKMYT1 inhibitors.
- A preview of the AP3 Interactome, which is a proprietary, machine-learning-enabled interactive platform used to uncover actionable drug-induced pathway effects across all studies.

A live and recorded webcast of the event will be available through a link on the Events & Presentations page within the investor section of the company’s website at https://ir.acrivon.com/news-events/events-presentations. The webcast will be available for at least 30 days following the event.

About Acrivon Therapeutics
Acrivon is a clinical stage biopharmaceutical company developing precision oncology medicines that it matches to patients whose tumors are predicted to be sensitive to each specific medicine by utilizing Acrivon's proprietary proteomics-based patient responder identification platform, Acrivon Predictive Precision Proteomics, or AP3. The AP3 platform is engineered to measure compound-specific effects on the entire tumor cell protein signaling network and drug-induced resistance mechanisms in an unbiased manner. These distinctive capabilities enable AP3's direct application for drug design optimization for monotherapy activity, the identification of rational drug combinations, and the creation of drug-specific proprietary OncoSignature companion diagnostics that are used to identify the patients most likely to benefit from Acrivon's drug candidates. Acrivon is currently advancing its lead candidate, ACR-368, (also known as prexasertib), a selective small molecule inhibitor targeting CHK1 and CHK2 in a potentially registrational Phase 2 trial across multiple tumor types. The company has received Fast Track designation from the Food and Drug Administration, or FDA, for the investigation of ACR-368 as monotherapy based on OncoSignature-predicted sensitivity in patients with platinum-resistant ovarian or endometrial cancer. Acrivon's ACR-368 OncoSignature test, which has not yet obtained regulatory approval, has been extensively evaluated in preclinical studies, including in two separate, blinded, prospectively-designed studies on pretreatment tumor biopsies collected from past third-party Phase 2 trials in patients with ovarian cancer treated with ACR-368. The FDA has granted Breakthrough Device designation for the ACR-368 OncoSignature assay for the identification of ovarian cancer patients who may benefit from ACR-368 treatment. In addition to ACR-368, Acrivon is also leveraging its proprietary AP3 precision medicine platform for developing its co-crystallography-driven, internally-discovered preclinical stage pipeline programs. These include ACR-2316, a potent, selective WEE1/PKMYT1 inhibitor designed for superior single-agent activity as demonstrated in preclinical studies against benchmark inhibitors, and a cell cycle program with an undisclosed target.

Forward-Looking Statements
This press release includes certain disclosures that contain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 about us and our industry that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this press release, including statements regarding our future results of operations or financial condition, business strategy and plans and objectives of management for future operations, are forward-looking statements. In some cases, you can identify forward-looking statements because they contain words such as "anticipate," "believe," "contemplate," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "should," "target," "will," or "would" or the negative of these words or other similar terms or expressions. Forward-looking statements are based on Acrivon's current expectations and are subject to inherent uncertainties, risks and assumptions that are difficult to predict. Factors that could cause actual results to differ include, but are not limited to, risks and uncertainties that are described more fully in the section titled "Risk Factors" in our reports filed with the Securities and Exchange Commission. Forward-looking statements contained in this press release are made as of this date, and Acrivon undertakes no duty to update such information except as required under applicable law.

Investor and Media Contacts:
Adam D. Levy, Ph.D., M.B.A.
alevy@acrivon.com

Alexandra Santos
asantos@wheelhouselsa.com