
**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): August 03, 2023

CORBUS PHARMACEUTICALS HOLDINGS, INC.

(Exact name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

001-37348
(Commission File Number)

46-4348039
(IRS Employer
Identification No.)

500 River Ridge Drive
Norwood, Massachusetts
(Address of Principal Executive Offices)

02062
(Zip Code)

Registrant's Telephone Number, Including Area Code: (617) 963-0100

(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 \$0.0001 per share	CRBP	The Nasdaq Capital Market

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 8.01 Other Events.

Corbus Pharmaceuticals Holdings, Inc. is using the slides attached hereto as Exhibit 99.1 to this Current Report on Form 8-K in connection with management presentations to describe its business.

Item 9.01 Financial Statements and Exhibits.

(d) The following exhibit is furnished with this report:

Exhibit No.	Description
99.1	Investor Presentation
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.

Corbus Pharmaceuticals Holdings, Inc.

Date: August 3, 2023

By: */s/ Yuval Cohen*
Name: Yuval Cohen
Title: Chief Executive Officer



Connecting Innovation to Purpose

Corporate Presentation
August 2023

Exhibit 99.1

NASDAQ: CRBP • CorbusPharma.com • @CorbusPharma

Forward-Looking Statements

This presentation contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 and Private Securities Litigation Reform Act, as amended, including those relating to the Company's restructuring, trial results, product development, clinical and regulatory timelines, market opportunity, competitive position, possible or assumed future results of operations, business strategies, potential growth opportunities and other statements that are predictive in nature. These forward-looking statements are based on current expectations, estimates, forecasts and projections about the industry and markets in which we operate and management's current beliefs and assumptions. These statements may be identified by the use of forward-looking expressions, including, but not limited to, "expect," "anticipate," "intend," "plan," "believe," "estimate," "potential," "predict," "project," "should," "would" and similar expressions and the negatives of those terms. These statements relate to future events or our financial performance and involve known and unknown risks, uncertainties, and other factors, including the potential impact of the recent COVID-19 pandemic and the potential impact of sustained social distancing efforts, on our operations, clinical development plans and timelines, which may cause actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Such factors include those set forth in the Company's filings with the Securities and Exchange Commission. Prospective investors are cautioned not to place undue reliance on such forward-looking statements, which speak only as of the date of this presentation. The Company undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise.

All product names, logos, brands and company names are trademarks or registered trademarks of their respective owners. Their use does not imply affiliation or endorsement by these companies.



NASDAQ: CRBP



Norwood, MA (Boston area)



Precision oncology + differentiated assets



Established targets → enhance probability of success



Multiple catalysts in 2023 – 2024



Next Generation Nectin-4 targeting ADC				
CRB-701 Next generation Nectin-4 targeting ADC	Nectin-4 positive solid tumors	CSPC (China)	Dose Escalation Started Q1 2023 Ends Q4 2023	Dose Confirmation / Expansion Start Q1 2024
		Corbus (US + Europe)	Dose Escalation Planned start Q1 2024 End Q2 2024	Dose Confirmation / Expansion Start Q3 2024

Anti-Integrin mAb		
CRB-601 Anti- $\alpha\text{v}\beta\text{8}$ mAb <i>(TGFβ-targeting)</i>	$\alpha\text{v}\beta\text{8}$ enriched solid tumors	IND Q4 2023

A decorative graphic on the right side of the slide, consisting of a network of interconnected nodes and lines, resembling a molecular structure or a network diagram. The nodes are represented by circles of varying sizes, and the lines are thin and light blue.

CRB-701

Next Gen
Nectin-4 Targeting ADC



Clinical Progress



1.2 mg/kg

Current China Phase 1 escalation is ahead of schedule (ends Q4 2023)

Clinical Data

CRB-701: 1.2 mg/kg (Q3W/21 days)
vs.
PADCEV®: 1.25 mg/kg (Q1Wx3/28 days)

→ ADC AUC is comparable



CRB-701 is currently dosing above PADCEV®'s RP2D of 1.25 mg/kg

Marked reduction in levels of circulating free MMAE compared to PADCEV®





Feature	CRB-701 [SYS6002]*	PADCEV®
mAb	Novel (2x speed of internalization)	Enfortumab
Linker	3 rd gen (site-specific + cleavable)	2 nd gen (cleavable)
Payload	MMAE (DAR = 2)	MMAE (DAR ~3.8)
Dosing	Q3W / 21 days	Q1W x 3 / 28 days

7

MMAE = Monomethyl auristatin DAR = Drug Antibody Ratio

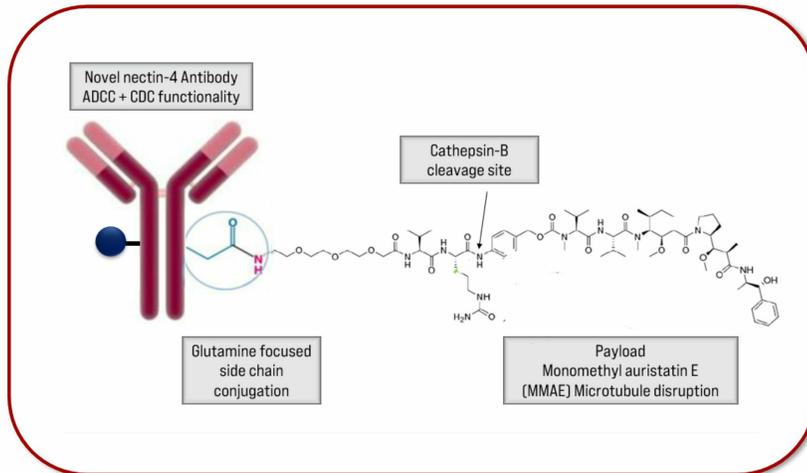
* US and European commercialization rights in-licensed from CSPC Megalith Biopharmaceutical Co., Lt. (China), a subsidiary of CSPC Pharmaceutical Group

Source(s): Corbus data on file; PADCEV®: BLA 761137; Tong et al. An Insight into FDA Approved Antibody-Drug Conjugates for Cancer Therapy. Molecules. 2021 Sep 27;26(19):5847. doi: 10.3390/molecules26195847. PMID: 34641391; PMCID: PMC8510272.



Opportunity to improve therapeutic index by:

1. Longer $t_{1/2}$ ADC
2. Faster ADC internalization
3. Improved linker stability
4. Optimized DAR
5. Enhanced ADC homogeneity
6. Increased ADC hydrophilicity
7. Reduction of free-MMAE



8

MMAE = Monomethyl auristatin E ADCC = antibody-dependent cellular cytotoxicity
CDC = complement dependent cytotoxicity DAR = Drug Antibody Ratio

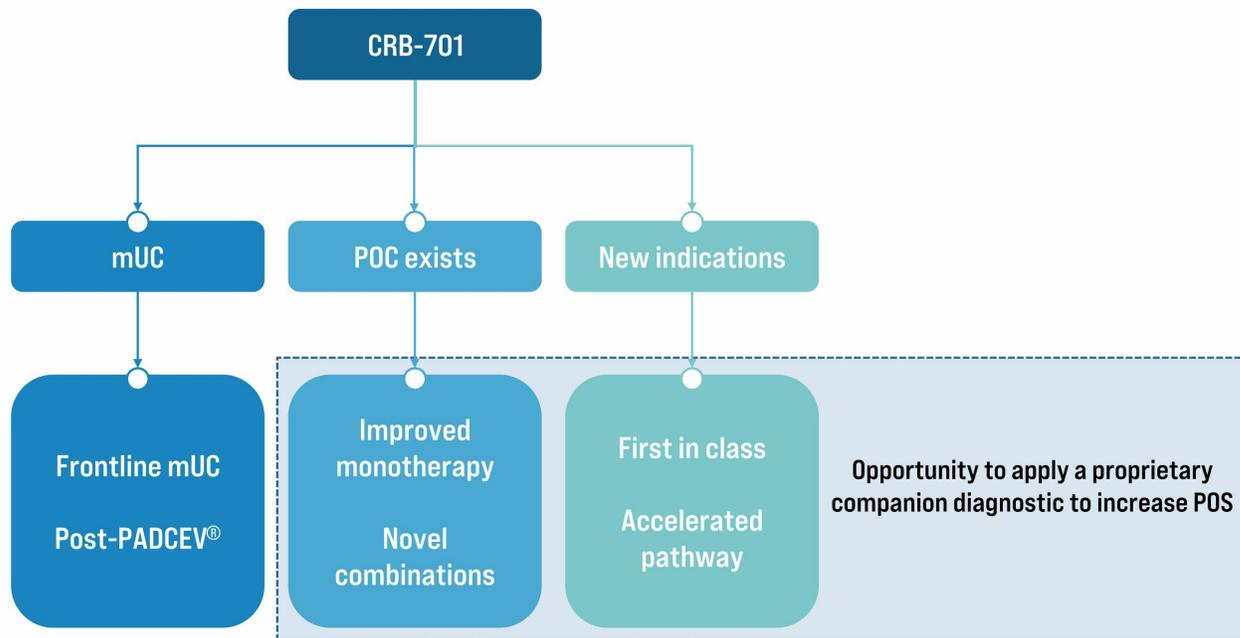
Source(s): Modified image from Corbus data on file; Corbus data on file

Nectin-4 landscape is emergent and diverse



Nectin- 4 / payload	IND enabling	Phase 1	Phase 2	Phase 3	Approved
 ADC  MMAE		CRB-701 			PADCEV® 
 Non-ADC (bicycle drug conjugate)  MMAE			BT8009 Bicycle		
 ADC  Non-MMAE	ADRX-0706  ETx-22 				

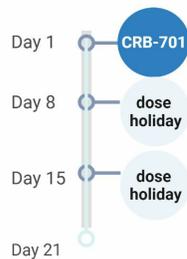
* Eli Lilly [purchased](#) Emergence Therapeutics on June 29th 2023 for an estimated total of \$470M with an additional \$335M in future milestones.



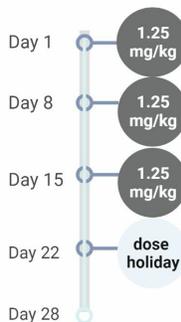


Clinical cycle comparison

CRB-701



PADCEV®



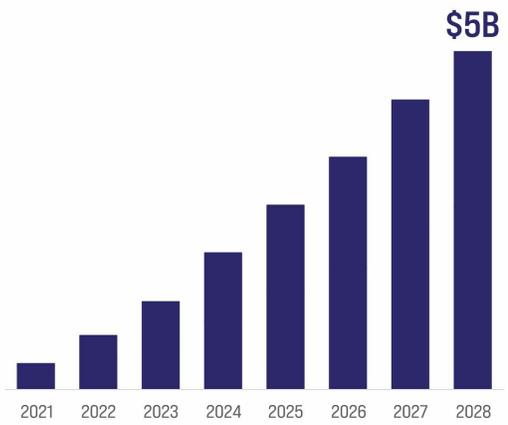
The current dosing schedule suggests
3 doses of PADCEV® compared to 1 dose CRB-701

Patient / physician convenience

Combination flexibility



PADCEV® Global Projected Revenues¹



¹Projected revenues for UC/Bladder only

Late-stage Clinical Development

	Phase 1	Phase 2	Phase 3
1L untreated locally advanced or metastatic urothelial cancer + pembrolizumab	[Progress bar]		
Perioperative muscle invasive bladder cancer + pembrolizumab, cisplatin ineligible	[Progress bar]		
Perioperative muscle invasive bladder cancer + pembrolizumab, cisplatin eligible	[Progress bar]		
Locally advanced or malignant metastatic solid tumors Monotherapy	[Progress bar]		
Locally advanced or metastatic urothelial cancer* +/- pembrolizumab	[Progress bar]		

*Enrollment Complete



WARNING: SERIOUS SKIN REACTIONS

- PADCEV can cause severe and fatal cutaneous adverse reactions including Stevens-Johnson syndrome (SJS) and Toxic Epidermal Necrolysis (TEN), which occurred predominantly during the first cycle of treatment, but may occur later.
- Closely monitor patients for skin reactions.
- Immediately withhold PADCEV and consider referral for specialized care for suspected SJS or TEN or severe skin reactions.
- Permanently discontinue PADCEV in patients with confirmed SJS or TEN; or Grade 4 or recurrent Grade 3 skin reactions [see *Dosage and Administration* (2.2), *Warnings and Precautions* (5.1) and *Adverse Reactions* (6.1)].

A Black Box warning for PADCEV® cautions physicians regarding the skin toxicity risk¹

Greater than 25% of PADCEV® discontinuations are linked to peripheral neuropathy³

PADCEV® Adverse Events (% of patients)

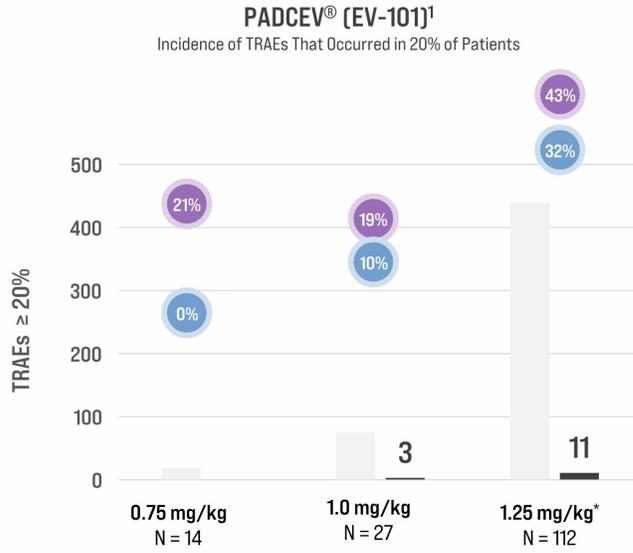
	PADCEV® monotherapy ¹		PADCEV® + pembrolizumab ²	
	All Grades	≥ Gr 3	All Grades	≥ Gr 3
Skin Reactions	56%	12%	72%	20%
Peripheral Neuropathy	53%	5%	65%	3.3%*

* Grade 3 only



RP2D defined by exposure-safety analysis^{1,2}

- Objective Response Rate¹
- Dose Reductions¹
- All grade TRAEs¹
- ≥Gr 3 TRAEs¹



EV-301³
TRAEs @ 1.25 mg/kg
(N = 296, monotherapy)

	All Grades
Rash	54%
Peripheral Neuropathy	50%
Fatigue	50%
Alopecia	47%
Decreased appetite	41%
Diarrhea	35%
Pruritus	34%
Nausea	30%

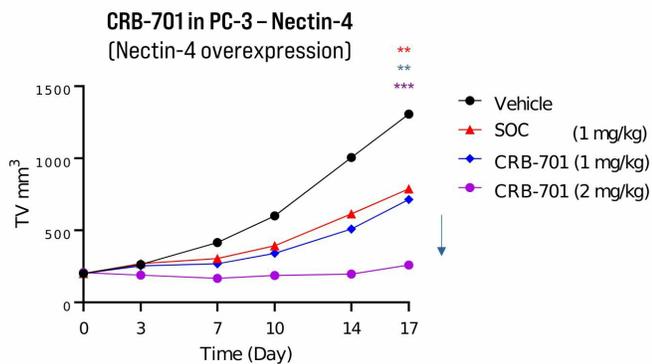
Adverse Reactions (≥30%) in Patients Treated with PADCEV® in EV-301

1. Rosenberg et al. EV-101: A Phase I Study of Single-Agent Enfortumab Vedotin in Patients With Nectin-4-Positive Solid Tumors, Including Metastatic Urothelial Carcinoma. J Clin Oncol. 2020 Apr 1;38(10):1041-1049. doi: 10.1200/JCO.19.02044. Epub 2020 Feb 7. Erratum in: J Clin Oncol. 2022 May 20;40(15):1711. PMID: 32031899; PMCID: PMC7106979; BLA 761137
 2. BLA 761137
 3. PADCEV® Prescribing Information as of Dec 2019

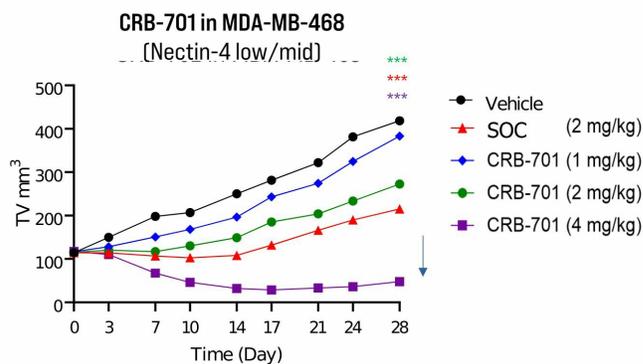


Comparison of in-vivo pharmacology

Prostate Cancer



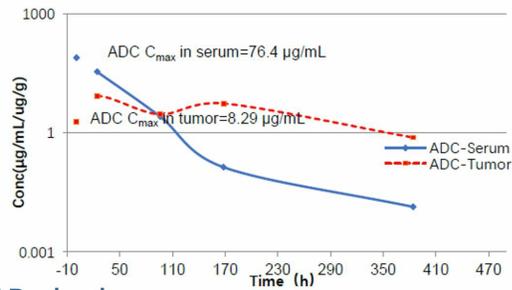
Triple Negative Breast Cancer



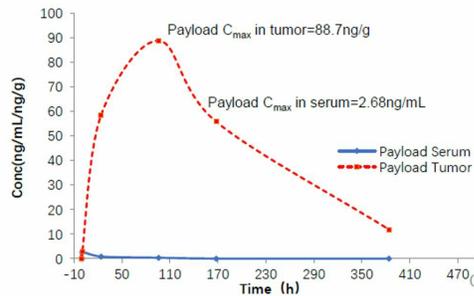
If improved therapeutic index is demonstrated clinically then the potential to see both a higher dose & greater efficacy exists



Parent drug



MMAE Payload



17

Source(s): Corbus data on file. *BLA 761137 PADCEV® Human Serum ADC C_{max} 28 µg/mL and Human Serum MMAE C_{max} 4.8 ng/mL

Breast cancer xenograft MDA-MB-468 pharmacokinetics

Measurement	Tumor C_{max}	Serum C_{max}	Tumor/Serum AUC ratio*
CRB-701 ug/ml	8.3	76.4	0.5X
MMAE payload ng/ml	88.7	2.7	164X

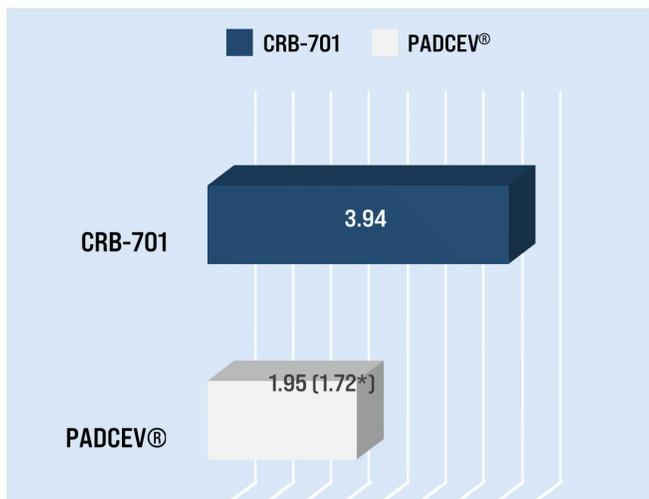
Tumor specific release of the MMAE payload
Supports improved efficacy and therapeutic index

Pre-clinical data: CRB-701 demonstrates a long half-life with high ADC exposure + low free-MMAE compared to PADCEV®



Single dose PK in Non-human Primates

Half Life (t_{1/2}) days*



Total ADC in plasma



Free MMAE in plasma





EUROPEAN MEDICINES AGENCY
SCIENCE · MEDICINES · HEALTH

European Public Assessment Report (EPAR)

Exposure- safety

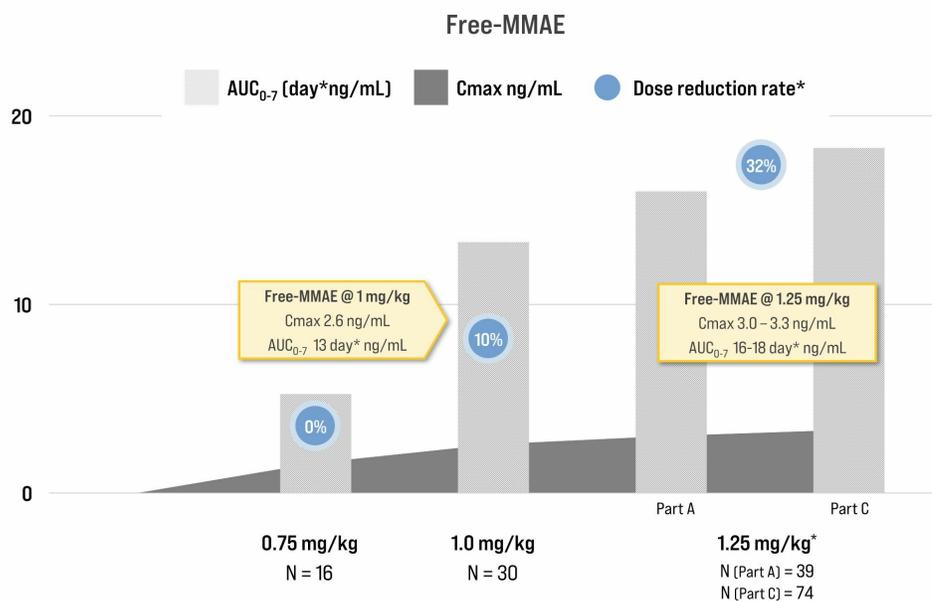
The exposure-response analyses established that enfortumab vedotin Cavg was a statistically significant positive predictor for the probability of drug-related TEAEs Grade ≥ 3 , TEAEs leading to dose adjustment, rash or severe cutaneous adverse reaction Grade ≥ 3 , peripheral neuropathy Grade ≥ 2 , and any hyperglycaemia Grade ≥ 3 . The increase in enfortumab vedotin Cavg was associated with increase in the probability of these adverse events.

Free MMAE exposure was also identified as a statistically significant predictor for all the adverse events in the exposure-safety modeling except for any hyperglycaemia Grade ≥ 3 .

...

Overall, despite these relationships between enfortumab vedotin exposure and reported safety outcomes, treatment with 1.25 mg/kg enfortumab vedotin was generally well tolerated with a manageable safety profile in patients with advanced urothelial cancer.

Hypothesis: free MMAE levels @ 1 mg/kg PADCEV® defines a key safety threshold



PADCEV® Free MMAE exposures @ 1.0 mg/kg

C_{max} 2.6 ng/mL
AUC₀₋₇ 13 day*ng/mL
AUC₀₋₂₁ 39 day*ng/mL

Exposures below this limit would be expected to minimize dose limiting tolerability effects

20

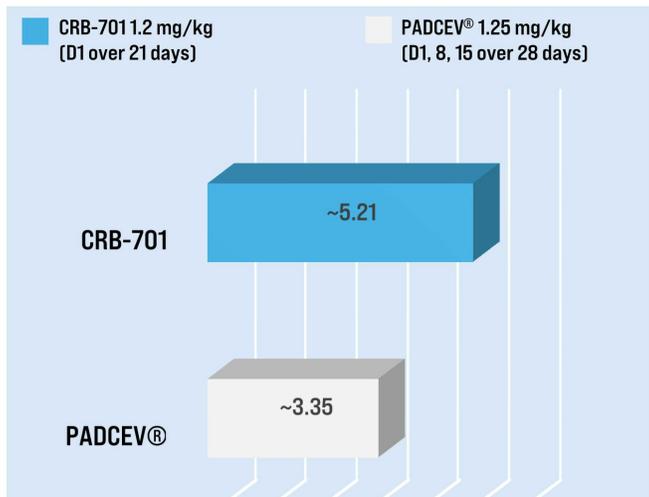
Source: Rosenberg J. EV-101: A Phase I Study of Single-Agent Enfortumab Vedotin in Patients With Nectin-4-Positive Solid Tumors, Including Metastatic Urothelial Carcinoma. J Clin Oncol. 2020 Apr 1;38(10):1041-1049. doi: 10.1200/JCO.19.02044. Epub 2020 Feb 7. Erratum in: J Clin Oncol. 2022 May 20;40(15):1711. PMID: 32031899; PMCID: PMC7106979.
*Dose reduction rate reported from the exploratory exposure-safety analysis used to define PADCEV® dose using the safety analysis group (see BLA 761137)

Clinical data: At similar drug doses CRB-701 delivers similar ADC levels but with 6-fold lower free-MMAE than PADCEV®



Single dose PK in Humans (cross trial data represented)

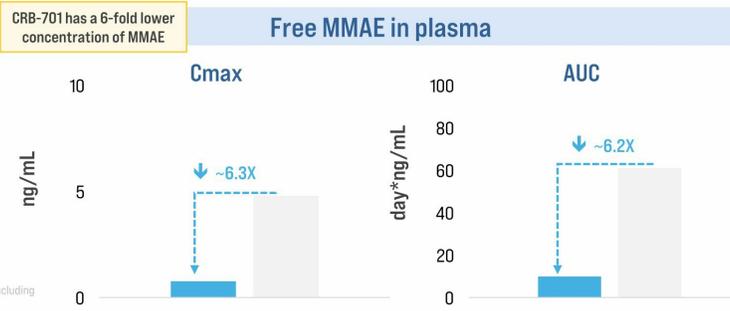
Half Life (t_{1/2}) days



Total ADC in plasma



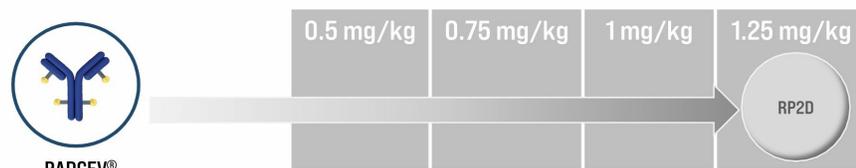
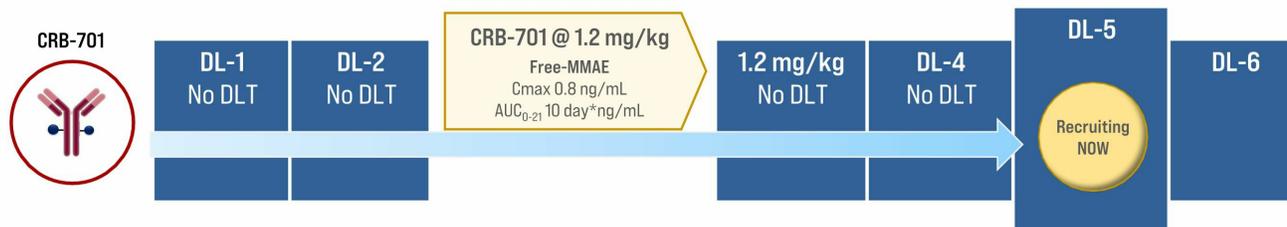
CRB-701 has the same exposure with less frequent dosing



CRB-701 has a 6-fold lower concentration of MMAE

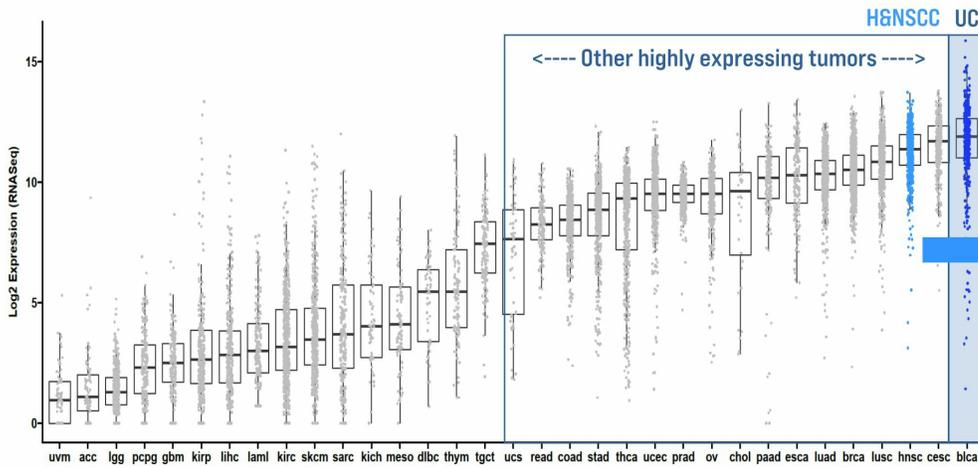
Free MMAE in plasma

1. PADCEV® data from BLA 761137 for 28-day cycle with doses on Days 1, 8, and 15, AUC = 0-28 day*ng/mL.
2. Rosenberg J. EV-101: A Phase I Study of Single-Agent Enfortumab Vedotin in Patients With Nectin-4-Positive Solid Tumors, Including Metastatic Urothelial Carcinoma. *J Clin Oncol.* 2020 Apr 1;38(10):1041-1049.
3. CRB-701 data from single dose at 1.2 mg/kg for comparison [0-21 day AUC units converted from hr*pg/mL to day*ng/mL]



PADCEV® free-MMAE exposures @ 1.0 mg/kg
 Cmax 2.6 ng/mL
 AUC₀₋₇ 13 day*ng/mL
 AUC₀₋₂₁ 39 day*ng/mL (extrapolated)

Validation of Nectin-4 as a tumor associated antigen beyond mUC

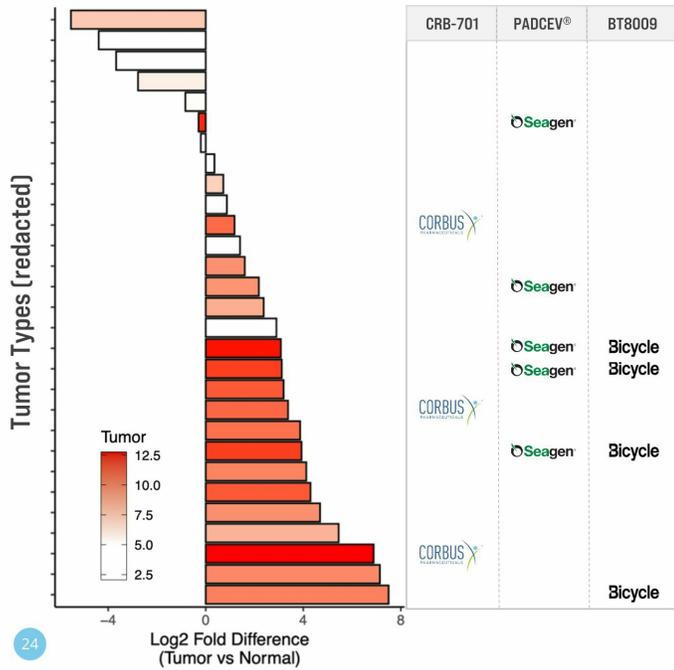


H&NSCC

Parameter	Patients (N=46)
Confirmed ORR	11 (23.9%)
CR	1 (2.2%)
PR	10 (21.7%)
SD	15 (32.6%)
mPFS	3.94 months

2023 ASCO ANNUAL MEETING

Elevated Nectin-4 expression: urothelial, breast, ovarian, cervical, colorectal, rectal, esophageal, gastric, lung, thyroid, prostate, cholangiocarcinoma, pancreatic cancer, testicular cancer



Differentiation of CRB-701's approach

1. Selecting tumors with a strong differential Nectin-4 gene expression
2. Companion diagnostic to identify relevant patient subsets
3. Uncovering insights re Nectin-4 (recycling & density) in nonclinical systems and primary tumors
4. Creating validation in tumor types that support clinical development beyond the competition

Source(s): Corbus proprietary analysis: Log2 fold change of nectin-4 expression as a ratio to normal tissue

Clinical Status: Nonclinical / Clinical Development plan



Updated planning
Aug 2023

Non-clinical

1. Clinical differentiation
2. Translational validation
3. CDx development

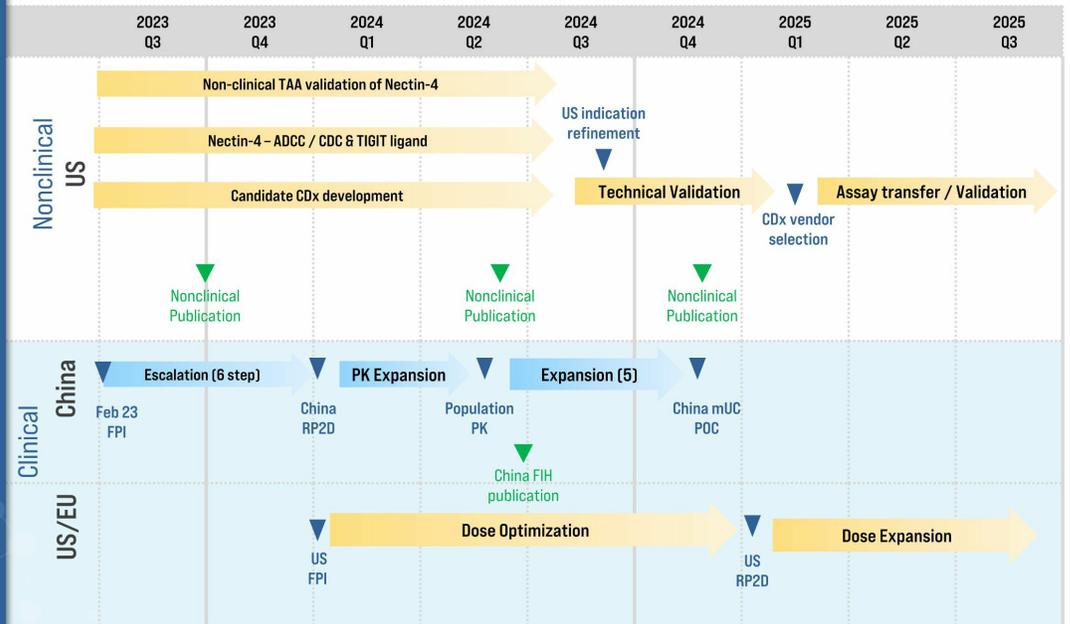
Clinical

1. Exploring doses beyond PADCEV®
2. Dose escalation complete Q4/24
3. CRB-701 bridging Q1/24
4. PK/safety /E modeling

Corbus

CSPC

CRB-701 Development Timeline



A decorative graphic on the right side of the slide, consisting of a network of interconnected nodes and lines, resembling a molecular structure or a network diagram. The nodes are represented by small circles of varying sizes, and the lines are thin and light green.

CRB-601

Potential “best-in-class”
 $\alpha v \beta 8$ mAb



Novel mechanism to target TGF β in the tumor microenvironment



Focus on adopting a precision-targeted approach



Large opportunity potential if POC is validated

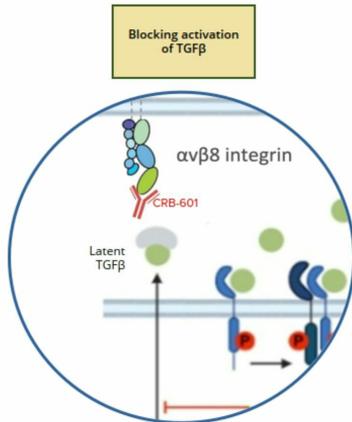


Targeting the integrin $\alpha\beta 8$ represents a novel approach to regulating TGF β

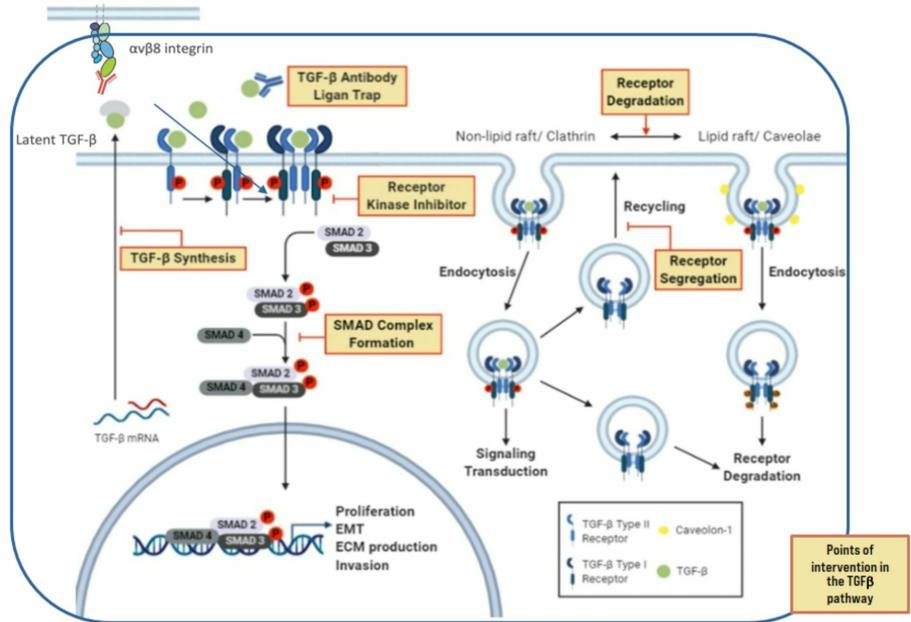


Novel point of therapeutic intervention

Blocking the $\alpha\beta 8$ activation of TGF β in the local tumor microenvironment



CRB-601 binds at the interface between latent TGF β and $\alpha\beta 8$



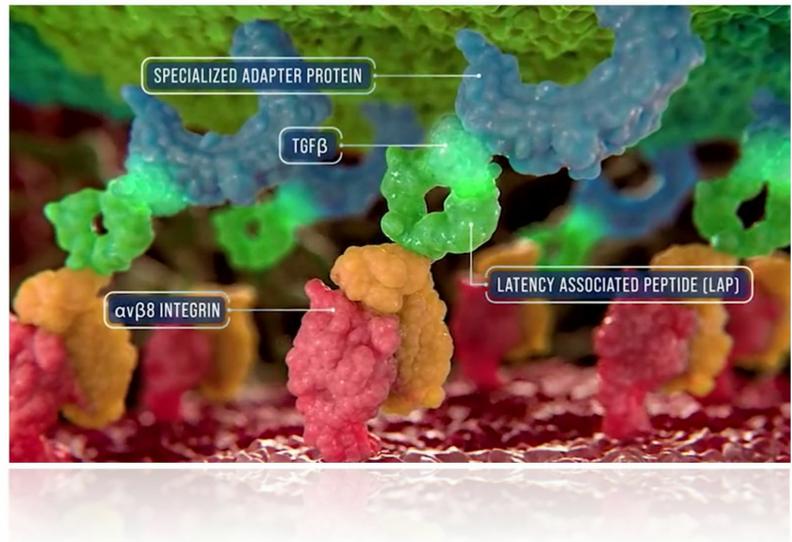
CRB-601 is targeting latent -TGF β by blocking the integrin α v β 8



The integrin α v β 8 is expressed in the tumor microenvironment (TME)

Latent-TGF β is also expressed in the TME

CRB-601 is a blocking antibody preventing the interaction of these two proteins



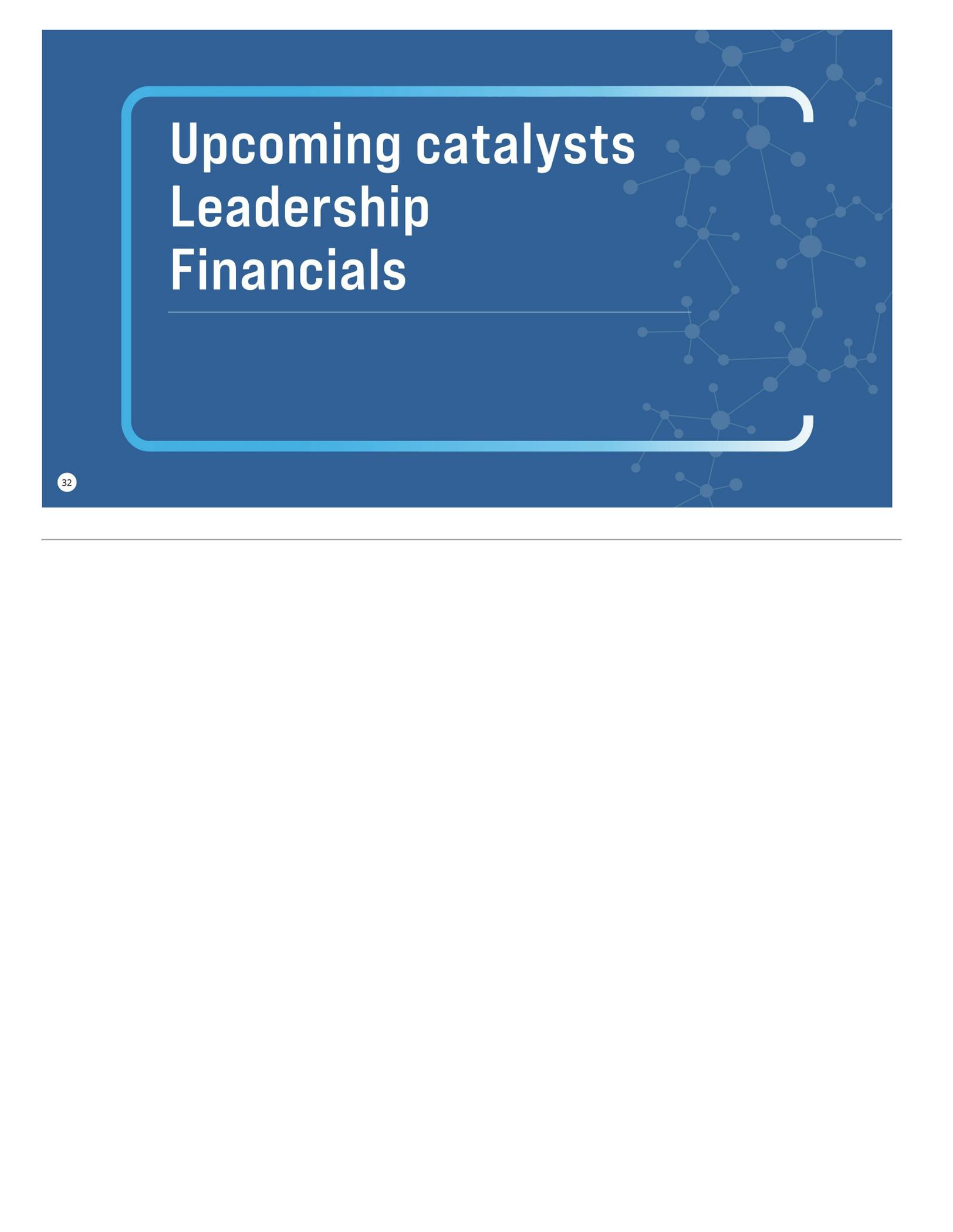
mAbs targeting TGFβ activation are advancing clinically



	CRB-601	PF-06940434	SRK-181	ABBV-151	R66440
MOA	αvβ8	αvβ8	L-TGFβ	GARP (TGFβ1)	L-TGFβ
Clinical Stage	IND in Q4 2023	Phase 1/2 <i>updated July 2023</i>	Phase 1	Phase 2 <i>updated July 2023</i>	Phase 1
Indications	Solid Tumors	Solid Tumors	Solid Tumors	Solid Tumors	Solid Tumors
Type	Monoclonal Antibody	Monoclonal Antibody	Monoclonal Antibody	Monoclonal Antibody	Monoclonal Antibody
ROA	IV	IV	IV	IV	IV



- IND filing scheduled for H2-2023
- FPI expected H1-2024
- Non-clinical validation of a potential patient selection biomarker in 2023
- Dose escalation and confirmation will be the focus through 2024

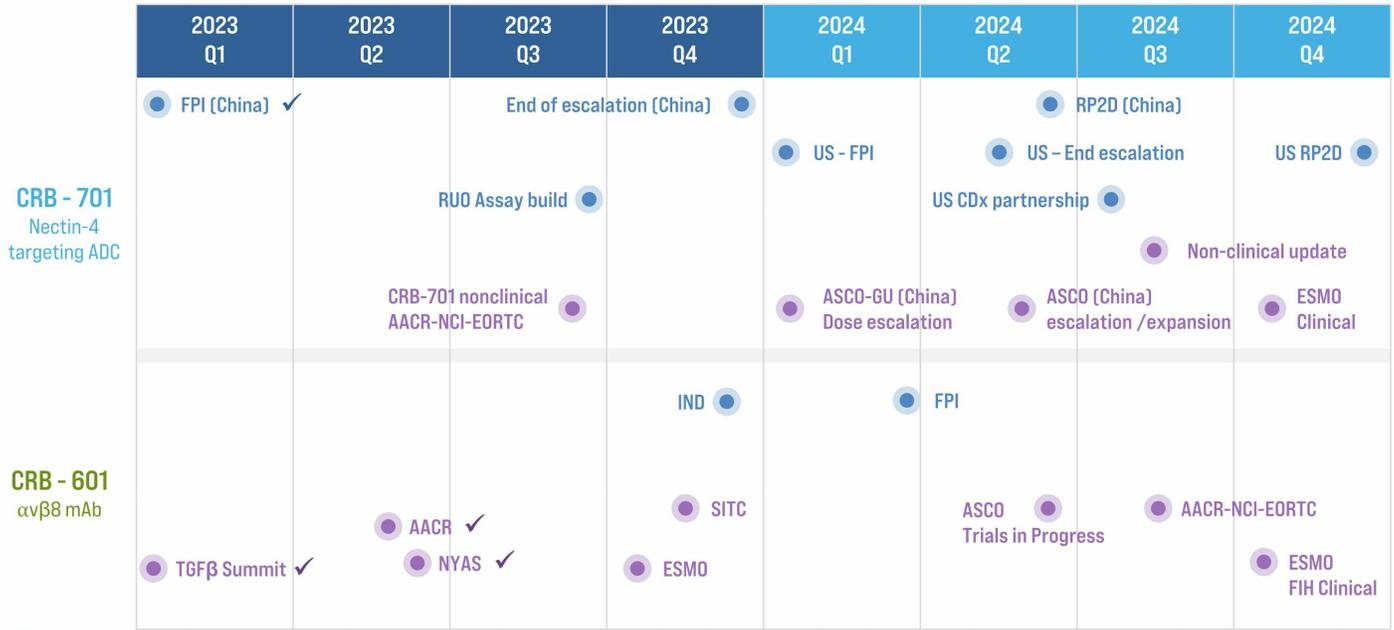


Upcoming catalysts

Leadership

Financials

2023 - 2024 Catalysts



● Clinical milestone
 ● Conference presentation

PK = pharmacokinetics
 CDx = companion diagnostic
 RP2D = recommended phase 2 dose
 FPI = first patient in



Yuval Cohen, PhD

Chief Executive Officer, Director

Corbus co-founder and Chief Executive Officer since 2014. Previously the President and co-founder of Celsus Therapeutics from 2005



Sean Moran, CPA, MBA

Chief Financial Officer

Corbus co-founder and Chief Financial Officer since 2014. Prior senior financial management experience in emerging biotech and medical device companies.



Rachael Brake, PhD

Chief Scientific Officer

Expert in developing and executing innovative drug discovery and clinical development oncology programs at several leading pharmaceutical companies



Christina Bertsch

Head of Human Resources

Accomplished senior human resource executive providing strategic HR consulting services to both large and small businesses across a variety of industries



Amb. Alan Holmer Ret.
Chairman of the Board

More than two decades of public service in Washington, D.C. including Special Envoy to China; Former CEO of PhRMA



Anne Altmeyer, PhD, MBA, MPH
Director

20 years of experience advancing oncology R&D programs and leading impactful corporate development transactions; currently President & CEO of Tigenix



Avery W. (Chip) Catlin
Director

More than 25 years of senior financial leadership experience in life science companies; Former CFO and Secretary of Celldex Therapeutics



Yuval Cohen, PhD
Chief Executive Officer, Director

Corbus co-founder and Chief Executive Officer since 2014. Previously the President and co-founder of Celsus Therapeutics from 2005



Rachelle Jacques
Director

More than 25-year professional career, experience in U.S. and global biopharmaceutical commercial leadership, including multiple high-profile product launches in rare diseases; CEO of Akari Therapeutics (NASDAQ: AKTX)



John K. Jenkins, MD
Director

Distinguished 25-year career serving at the U.S. FDA, including 15 years of senior leadership in CDER and OND



Pete Salzmann, MD, MBA
Director

20 years of industry experience and currently serves as Chief Executive Officer of Immunovant (NASDAQ: IMVT), a biopharmaceutical company focused on developing therapies for patients with autoimmune diseases



Yong (Ben) Ben, MD, MBA
Director

25 years of oncology R&D experience across industry and academia. Held two industry CMO positions, most recently at BeiGene (BGNE).

Focus on developing precision oncology + differentiated assets



Clinically developing a next generation Nectin-4 targeting ADC



Advancing anti- α v β 8 integrin program to IND submission in Q4-2023



Engaging in business development activities to expand Corbus oncology pipeline

Sufficient capital to fund operations through the second quarter of 2024

CRBP
Ticker

\$37 Million

Cash and investments as of June 30, 2023
4.4 M Common Shares Outstanding
(5.2M Fully Diluted Shares) ¹



Appendix

CRB-701 is licenced from CSPC¹: a top ten biopharmaceutical company in China²



HKSE: 1093.HK

Market Cap: \$10.8B³

2022 Revenue: \$4.3B³

of employees: 24,837

~300 R&D projects under development, **First approval in China for mRNA covid vaccine**

864 drug licenses, **68** API licenses

Recent US deals:
Pfizer (Paxlovid)

Therapeutic out licensing:
Elevation (E0-3021)
Flame (FL-301)

38

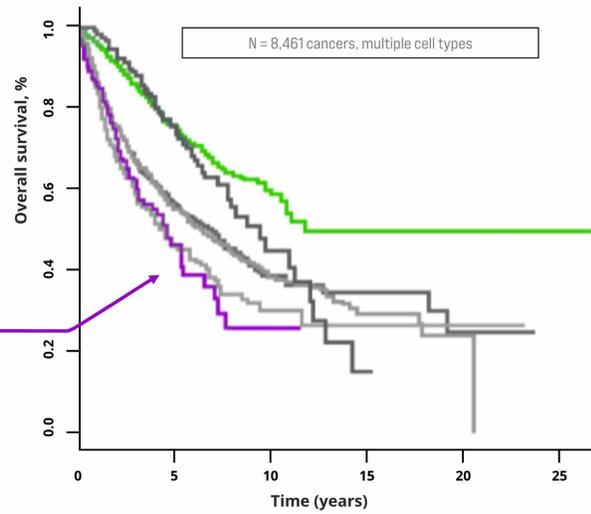
Source(s): 1. US and European commercialization rights in-licensed from CSPC Megalith Biopharmaceutical Co., Lt. (China), a subsidiary of CSPC Pharmaceutical Group 2. GlobalData as of Dec 31, 2022. 3. Yahoo Finance as of July 28, 2023. Company websites. CSPC data on file.



Immunogenomic subtypes in cancer

- C1 WOUND HEALING
- C2 INF- DOMINANT
- C3 INFLAMMATORY
- C4 LYMPHOCYTE DEPLETED
- C5 IMMUNOLOGICALLY QUIET
- C6 TGF DOMINANT

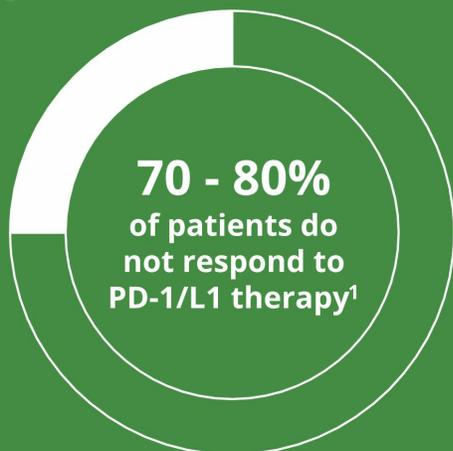
TGF β predominance gene signature



Gene expression, immune cell quantification & network mapping
• 33 different cancer types / 8,000+ tumors



PD-1/L1 Response Rates



□ Non-responder

■ Responder



\$70B+ in projected PD-1/L1 sales worldwide by 2028²



Opportunity to improve response with biomarker-based, precision combos

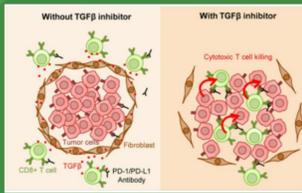
Source(s):

1. Sun, JY., Zhang, D., Wu, S. et al. Resistance to PD-1/PD-L1 blockade cancer immunotherapy: mechanisms, predictive factors, and future perspectives. *Biomark Res* 8, 35 (2020).
2. Evaluate, January 2023

TGF- β signaling has a negative association with PD-L1 inhibitor responses clinically

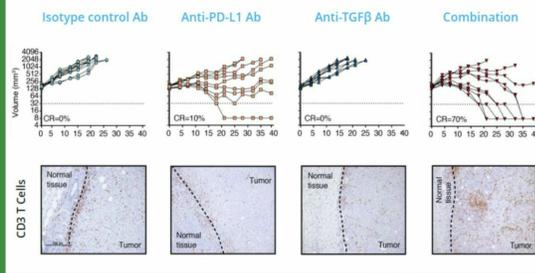


Non-clinical



An increase in CD3 immune cell filtration is associated with the anti PD/L1 and pan TGF β antibody combination

Immune tolerance / Immune evasion is a major effect of TGF β in cancer

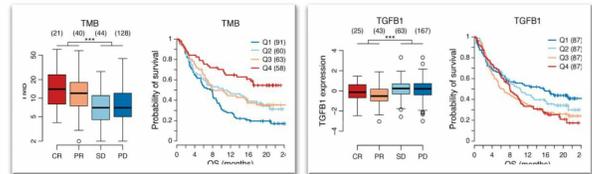


Source(s): Mariathasan et al., 2018; 554-547. Ganesh & Massague. Immunity 2018; 626-628

Clinical

Anti PD/L1 response in Urothelial cancer

(68 responders / 230 non-responders)



Positive Outcomes

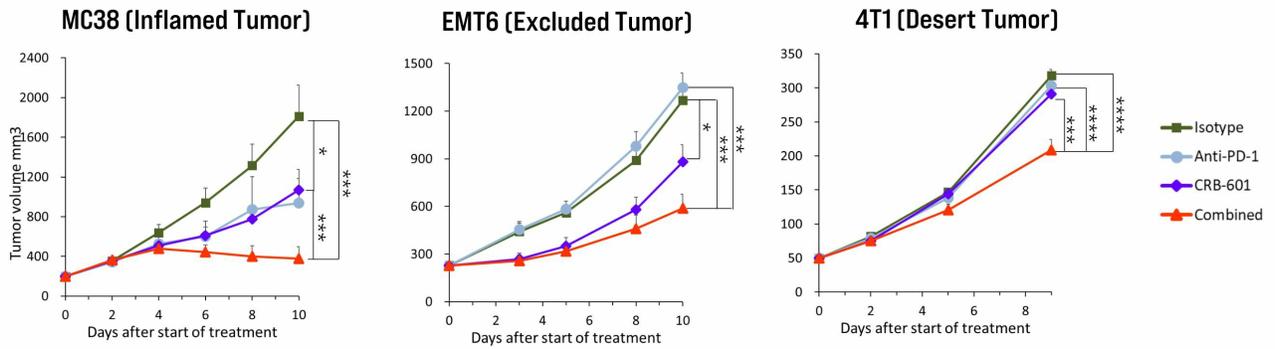
Negative Outcomes

- Pre-existing T-cell immunity
- High TMB
- Increased TGF- β signaling

TGF β 1 gene expression nonresponse $p = 0.00011$
OS (likelihood ratio test) $p = 0.0096$

Source(s): Sun, JY., Zhang, D., Wu, S. et al. Resistance to PD-1/PD-L1 blockade cancer immunotherapy: mechanisms, predictive factors, and future perspectives. Biomark Res 8, 35 (2020). Evaluate, January 2023

CRB-601 enhances anti-PD-1 therapy in checkpoint inhibition sensitive and resistant murine tumor models



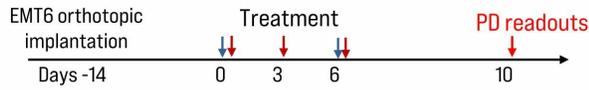
Checkpoint blockade sensitivity



% TGI	MC38	EMT6	4T1
Anti-PD-1	54	-8	6
CRB-601	46	37	10
Combo	89	65	41

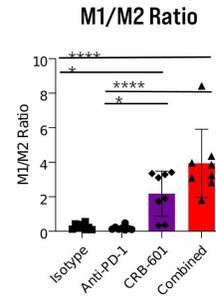
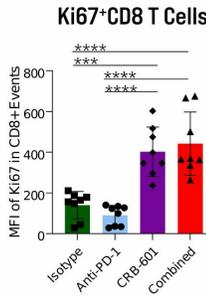
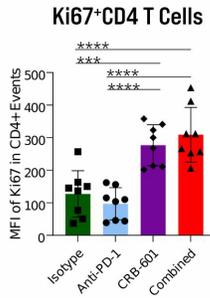
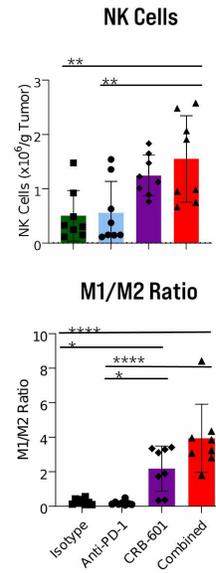
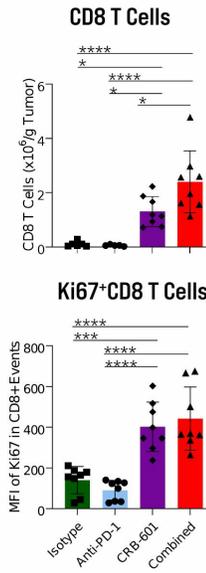
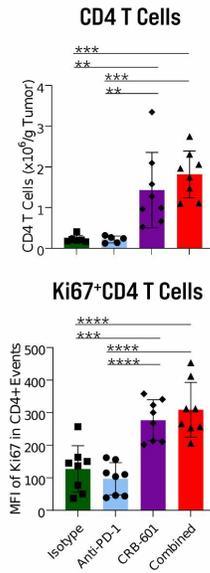
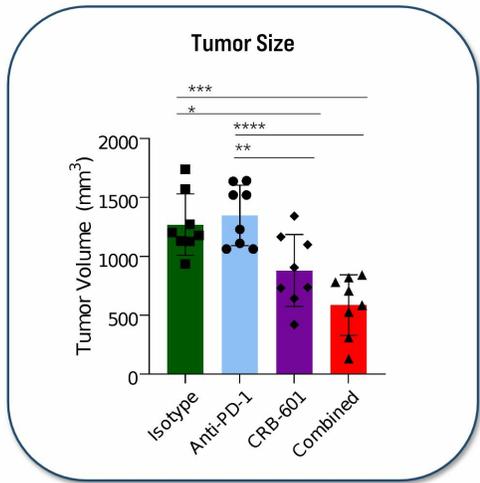
CRB-601: 10 mg/kg BIW
Anti-PD-1: 10 mg/kg BIW
10 animals / group
Animals randomized at 50-80 mm³
Comparisons across arms
 * $p < 0.05$, *** $p < 0.001$, **** $p < 0.0001$

Blockade of $\alpha\beta 8$ in combination with anti-PD-1 increased TIL populations in immune excluded EMT6 tumors

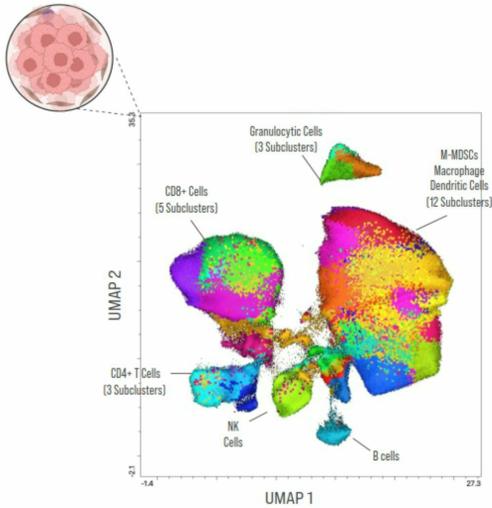


↓ CRB-601, 30 mg/kg, IP
↓ Anti-PD-1, 10 mg/kg, IP

Tumor volume = 200 mm³
(when treatment initiated)

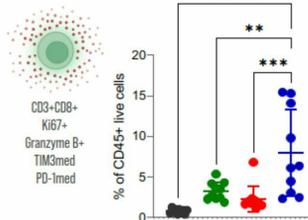


43 * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; **** $p < 0.0001$
Source(s): Corbus data on file

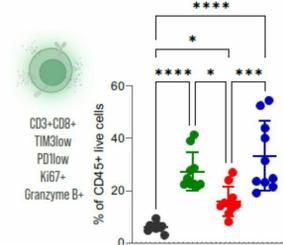


- 22 antibody flow cytometry panel
- 1.25 million live CD45+ cells analyzed
- 31 immune clusters from high dimensional flow analysis
- Sample processing (1) Downsample (2) UMAP (3) X-Sift (4) Euclid (5) Cluster Explorer
- Animals have undergone 10 days of treatment.

Cytotoxic Effector CD8 T Cells

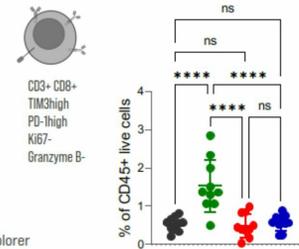


Intermediate Exhausted CD8 T cells

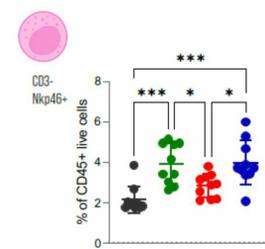


- Isotype
- PD-1
- CRB-601
- Combination

Terminally Exhausted CD8 T cells



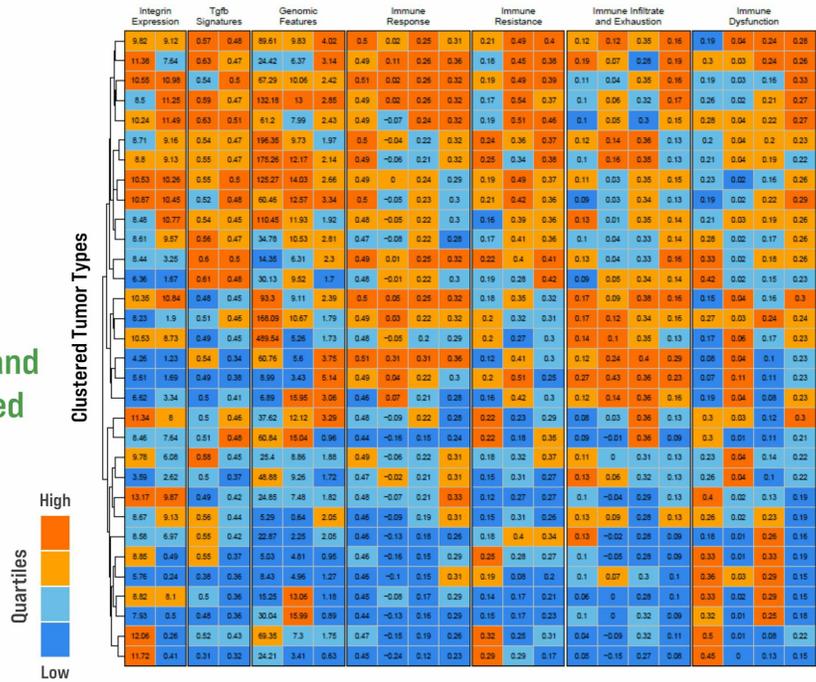
Natural Killer Cells





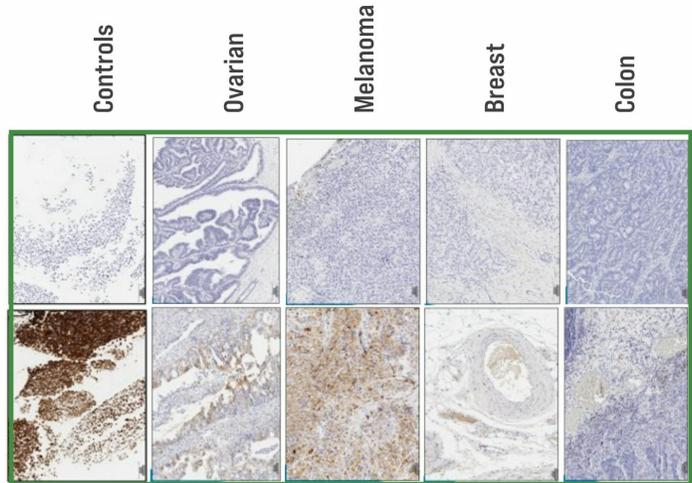
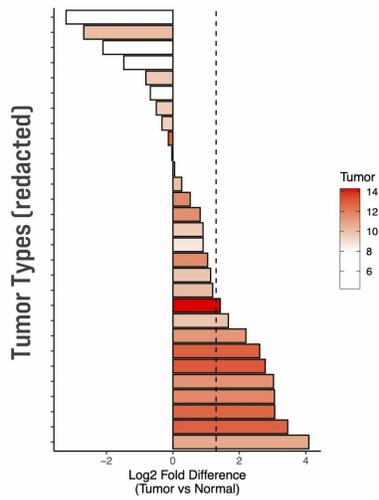
A multi-parametric, immune-focused algorithm has refined indications for CRB-601

The combination of immune features and gene expression profiles have identified 9 indications for clinical priority





Prioritization of indications with differential gene expression vs. normal tissues will emphasize focus on the tumor potential of $\alpha v\beta 8$



Development of a NEW patient enrichment biomarker will assist in enriching for responses and addressing the right immune resistant patient population with CRB-601