



2019 Research & Development Day

REIMAGINING THERAPEUTIC ANTIBODIES



FEBRUARY 2019

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This presentation may contain projections and other forward-looking statements regarding future events. All statements other than statements of historical facts contained in this presentation, including statements regarding our future financial condition, technology platform, development strategy, prospective products, preclinical and clinical pipeline and milestones, regulatory objectives, expected payments from and outcomes of collaborations, and likelihood of success, are forward-looking statements. Such statements are predictions only and involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. These risks and uncertainties include, among others, the costs, timing and results of preclinical studies and clinical trials and other development activities; the uncertainties inherent in the initiation and enrollment of clinical trials; expectations of expanding on-going clinical trials; availability and timing of data from clinical trials; the unpredictability of the duration and results of regulatory review; market acceptance for approved products and innovative therapeutic treatments; competition; the potential not to receive partnership milestone, profit sharing or royalty payments; the possible impairment of, inability to obtain and costs of obtaining intellectual property rights; and possible safety or efficacy concerns, general business, financial and accounting risks and litigation. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified and some of which are beyond our control, you should not rely on these forward-looking statements as predictions of future events. More information concerning us and such risks and uncertainties is available on our website and in our press releases and in our public filings with the U.S. Securities and Exchange Commission. We are providing this information as of its date and do not undertake any obligation to update or revise it, whether as a result of new information, future events or circumstances or otherwise. Additional information may be available in press releases or other public announcements and public filings made after the date of this presentation.

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Welcome and Strategic Overview

Sean McCarthy, D.Phil.

President, Chief Executive Officer and Chairman



Today's Agenda and Speakers

CYTOMX THERAPEUTICS 2019 RESEARCH & DEVELOPMENT DAY	
Welcome and Strategic Overview	Sean McCarthy, D. Phil.
The Probody Platform	Michael Kavanaugh, M.D.
CX-072 (PD-L1) PROBODY PROGRAM	
Program Overview	Rachel Humphrey, M.D.
CX-2009 (CD166) PROBODY DRUG CONJUGATE PROGRAM	
Program Overview	Rachel Humphrey, M.D. Michael Kavanaugh, M.D.
TRANSLATION AND INNOVATION	
CX-072 and CX-2009 Clinical Translational Overview	Michael Kavanaugh, M.D.
The Next Wave of Innovation	Michael Kavanaugh, M.D.
Question and Answer	
Break	
FUTURE PERSPECTIVES	
Probody™ Therapeutics: Perspectives from a PROCLAIM Clinical Investigator	Alex Spira, M.D., Ph.D., FACP
CytomX in 2019 and Beyond	Sean McCarthy, D. Phil.
Question and Answer	
Closing Remarks	Sean McCarthy, D. Phil.

CYTOMX THERAPEUTICS LEADERSHIP



SEAN MCCARTHY, D.Phil.
President, Chief Executive Officer
and Chairman



MICHAEL KAVANAUGH, M.D.
Chief Scientific Officer and
Head of Research and
Non-Clinical Development



RACHEL HUMPHREY, M.D.
Chief Medical Officer

TODAY'S GUEST SPEAKER



ALEX SPIRA, M.D., PH.D., FACP
Director, Virginia Cancer Specialists Research
Institute, Assistant Professor, Johns Hopkins
School of Medicine and Medical Director,
US Oncology Lung Program

Reimagining Therapeutic Antibodies

ANTIBODIES ARE A SUCCESSFUL CLASS OF THERAPEUTICS

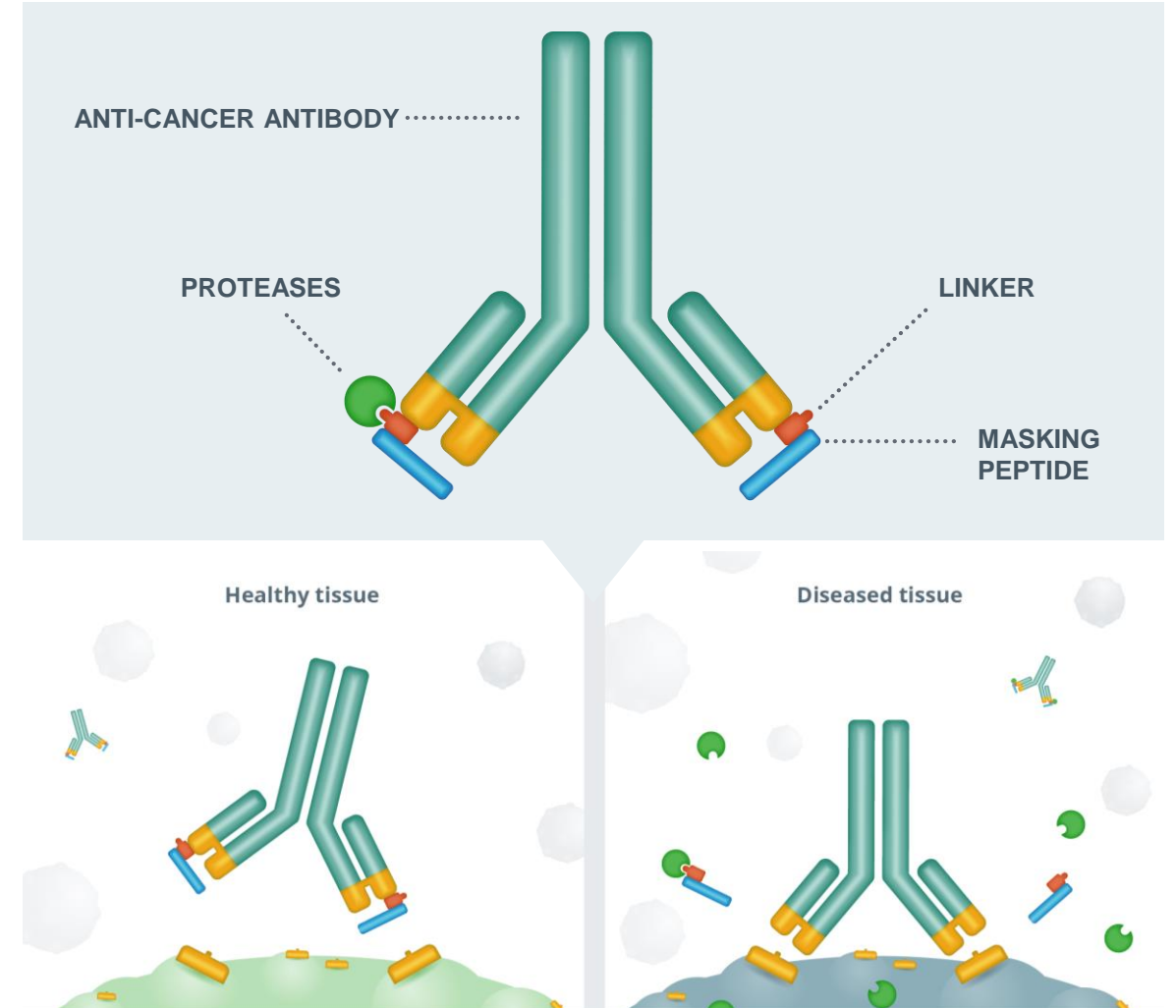
- Powerful, potent modalities; > \$100 billion WW sales 2018
- Potency can be a liability for widely distributed targets
- Major opportunity to improve targeting and localize antibody pharmacology

CYTOMX PROBODY™ PLATFORM IS DESIGNED TO LOCALIZE TARGET BINDING TO TUMOR

- Maintaining potency
- Reducing side effects
- Enabling new target opportunities

PROBODY PLATFORM BUILT ON A DECADE OF “HIGH SCIENCE” RESEARCH AT CYTOMX

- Deep knowledge of tumor microenvironment biology
- Innovative antibody engineering and IP to create Probody therapeutics, a unique class of localized, antibody prodrugs



Our Vision and Mission

VISION

*Transforming
lives with safer,
more effective
therapies*

MISSION

*Changing the
treatment of cancer
by urgently
advancing our
Probody pipeline*

Our Corporate Strategy

INTEGRATED SET OF ACTIONS TO EXPLOIT BROAD POTENTIAL OF THE PROBODY PLATFORM

- Discover and develop **differentiated, best-in-class** antibody-based immunotherapies against **validated targets** with **meaningful therapeutic window enhancements**
- Discover and develop **first-in-class** therapies against **novel, undruggable targets** with potential across multiple cancer types
- Develop **safer, more effective combination therapies** to drive longer term, more durable patient responses
- Leverage platform versatility to enable **new potent therapeutic antibody formats, e.g. Probody T Cell Bispecifics**
- Establish corporate alliances for non-dilutive **capital**, additional **resources** and **expertise**
- Access technologies/programs** to complement our platform and our pipeline

ADVANCEMENT OF DEEP AND DIFFERENTIATED ONCOLOGY PIPELINE

TARGET TYPE	PRODUCT CANDIDATE	LEAD OPTIMIZATION	IND-ENABLING	PHASE 1/2	COMMERCIAL RIGHTS
Validated	CX-072	PD-L1 Probody Immunotherapy			CYTOMX
Novel	CX-2009	CD166 Probody Drug Conjugate			CYTOMX
Validated	BMS-986249	CTLA-4 Probody Immunotherapy			Bristol-Myers Squibb
Novel	CX-2029	CD71 Probody Drug Conjugate			abbvie CYTOMX
Validated	CX-188 (on hold)	PD-1 Probody Immunotherapy			CYTOMX
Novel	Probody Drug Conjugate	EpCAM PDC			immunogen
Validated Target, Novel Format	Pb T Cell Bispecific	EGFR-CD3 PbTCB			AMGEN CYTOMX
Novel	Additional PDCs, IO, TCBs				CYTOMX

Immunotherapies

Probody Drug Conjugates

Pb T Cell Engaging Bispecifics

Multiple Programs

Consistent Execution and Robust Corporate Trajectory

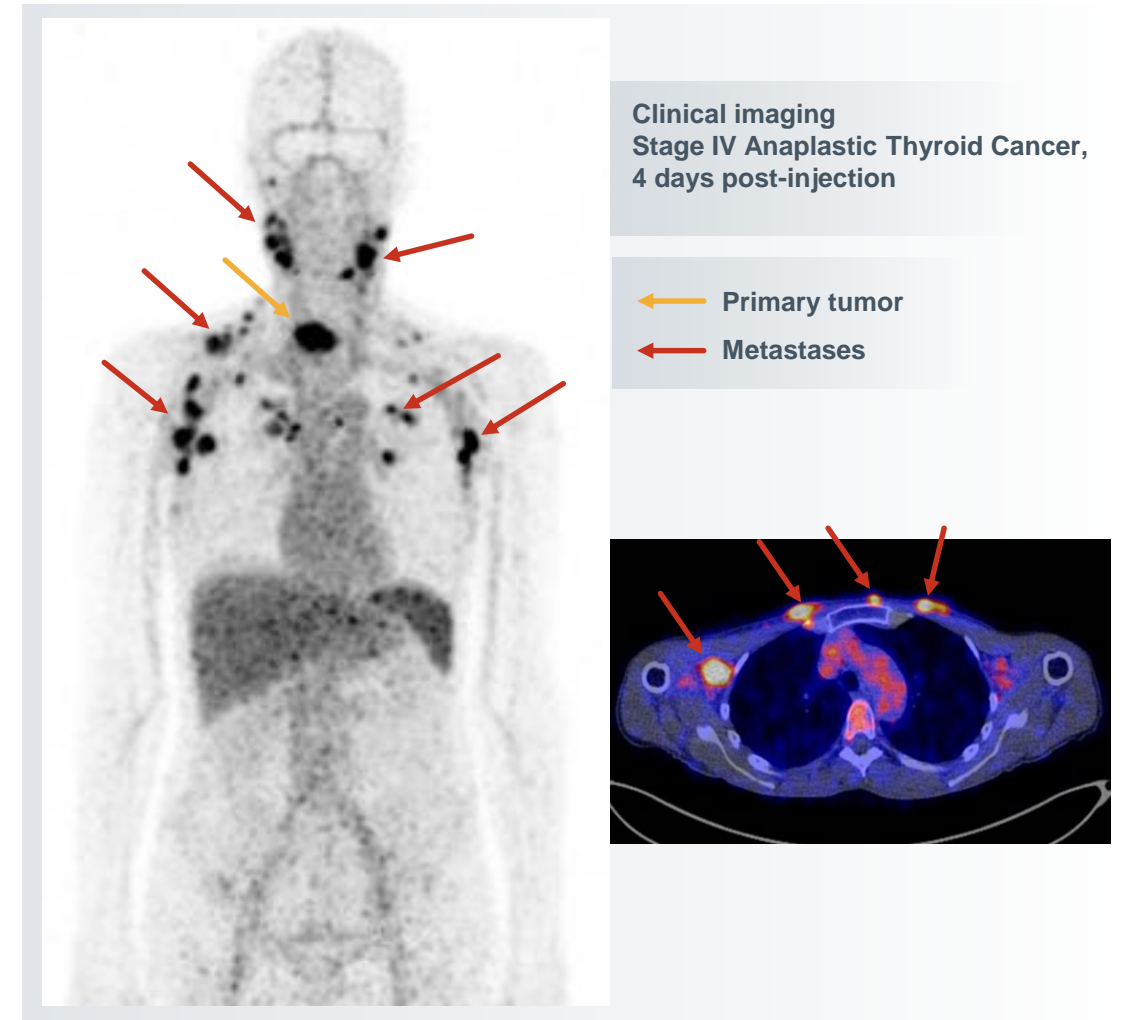
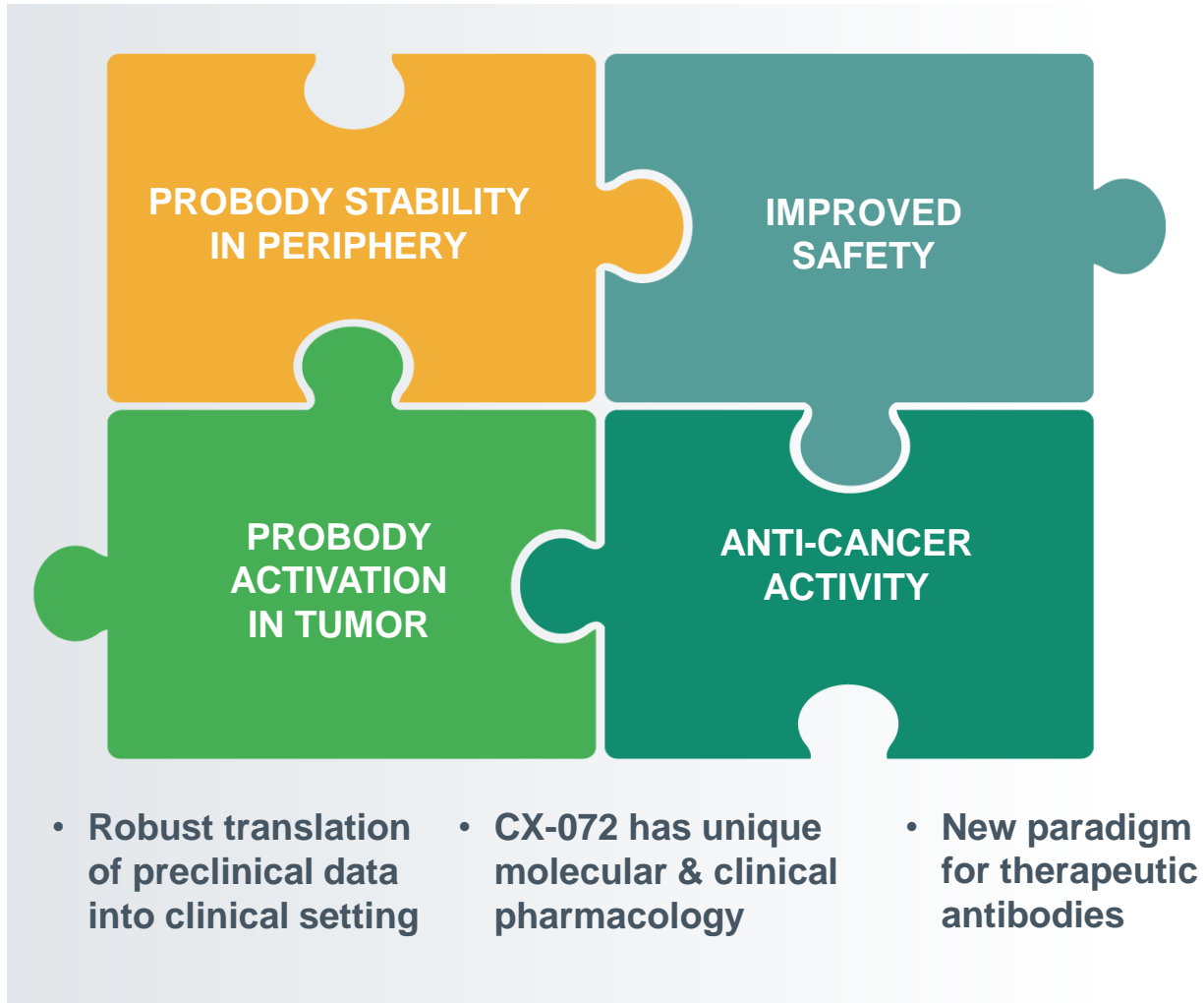


2018: A Transformational Year of Firsts for CytomX

- First-in-Human Probody Clinical Data
- First Clinical Translational Data
- First Partnered Programs Entering the Clinic
- First Follow-On Financing Since 2015 IPO



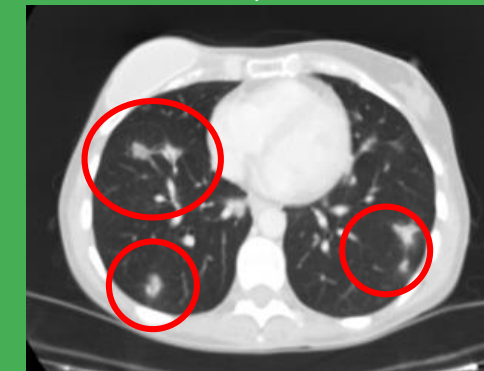
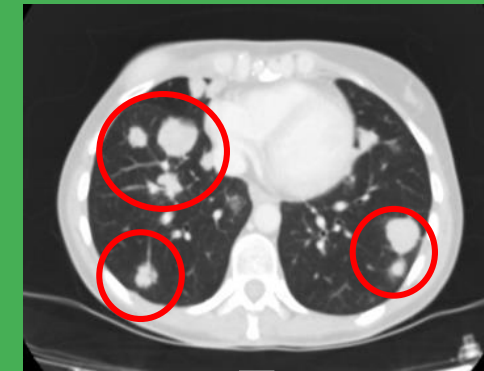
Integrated Clinical and Translational Data Support First Platform Proof-of-Concept



CX-2009 is an Investigational First-in-Class Anti-CD166 Targeted Therapy with Broad Market Potential

- CD166 is highly expressed in most cancers and normal tissues
 - Probody platform enables tumor targeting
- CX-2009 is a Probody Drug Conjugate targeted to CD166
 - Empowered with a cytotoxic payload
- Preliminary clinical data suggest CX-2009 is active and well tolerated
 - Potential to be a novel, targeted cancer therapy
- CytomX is building a pipeline of PDCs directed against first-in-class targets

TUMOR SHRINKAGE IN METASTATIC BREAST CANCER PATIENT TREATED WITH CX-2009



Today's Agenda: New Clinical Disclosures

CX-072

- Monotherapy clinical activity and safety profile
 - Additional follow-up from dose escalation
 - Part D – Selected Indications, Initial Snapshot of Safety and Efficacy
- Combination with YERVOY® (Ipilimumab)
 - Additional follow-up from dose escalation

CX-2009

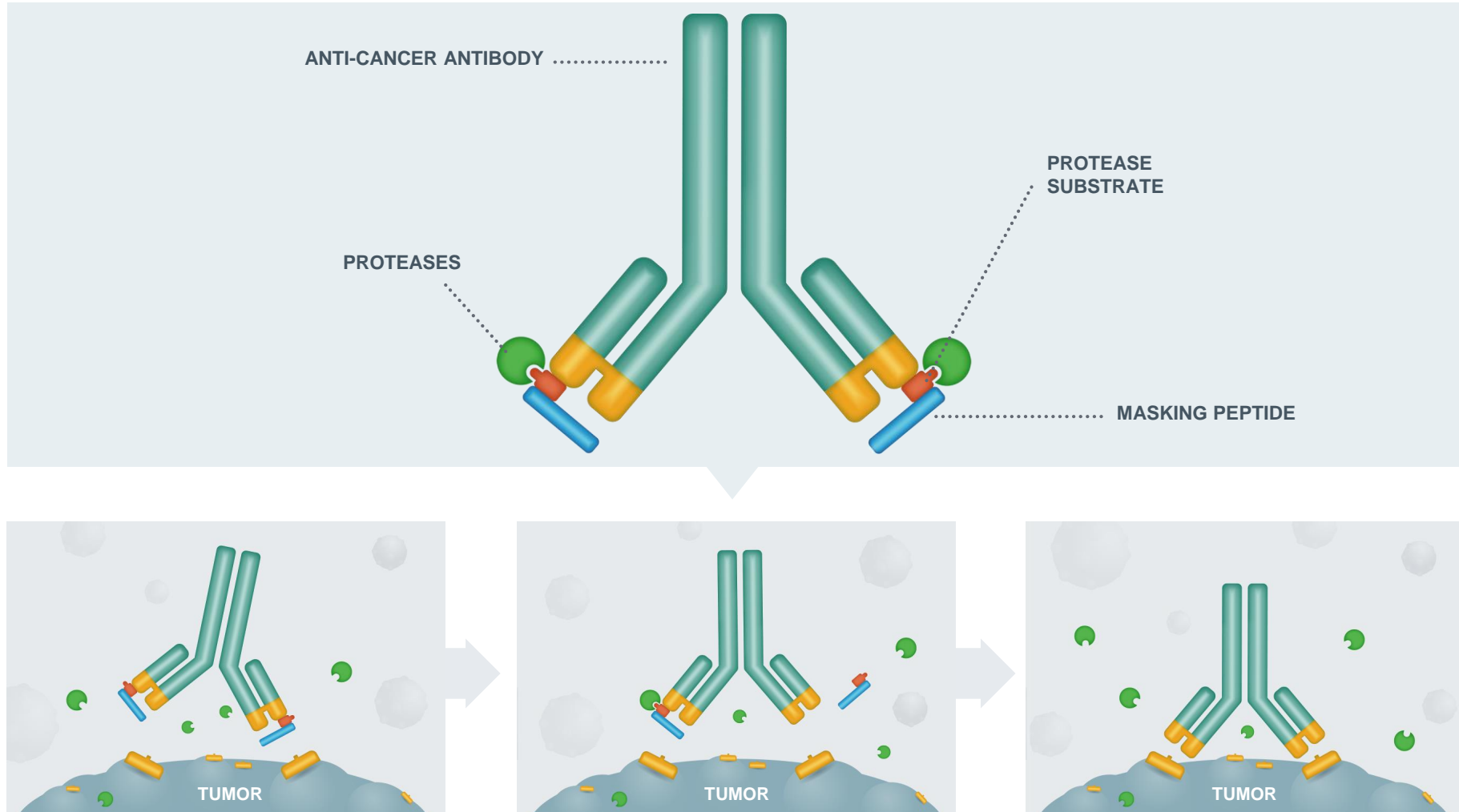
- Initial safety and efficacy from Phase 1 dose escalation
- Preclinical data supporting potential CX-072 + CX-2009 combination

Probody™ Platform Overview

Michael Kavanaugh, M.D.

Chief Scientific Officer and Head of Research
and Non-Clinical Development

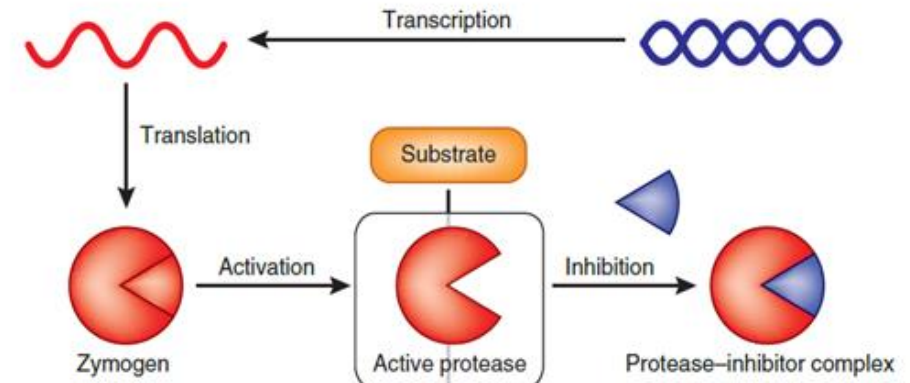
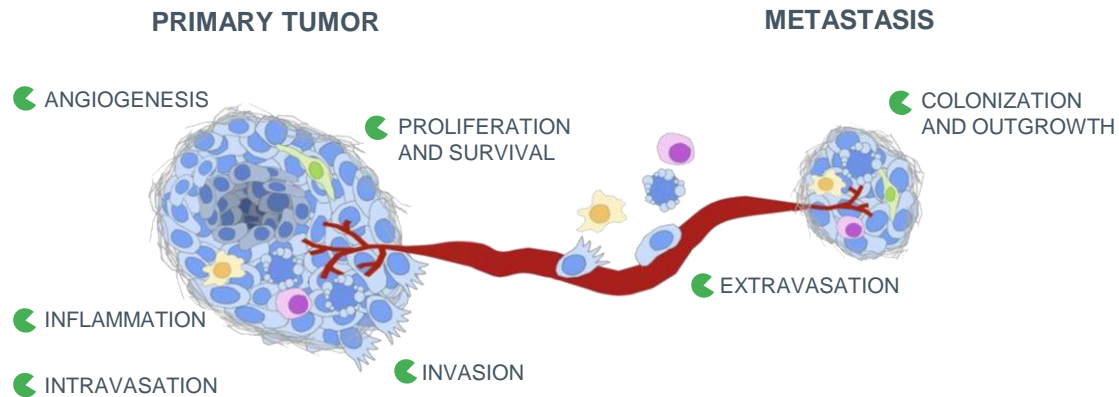
Probody Therapeutics are Designed to be Activated in the Tumor Microenvironment



Activated Proteases are Prevalent in Tumors but Not in Healthy Tissue

UPREGULATED PROTEASE ACTIVITY IS A HALLMARK OF ALL CANCERS¹

PROTEASE ACTIVITY IS TIGHTLY CONTROLLED IN HEALTHY TISSUES²



IMAGING OF ACTIVE PROTEASE³

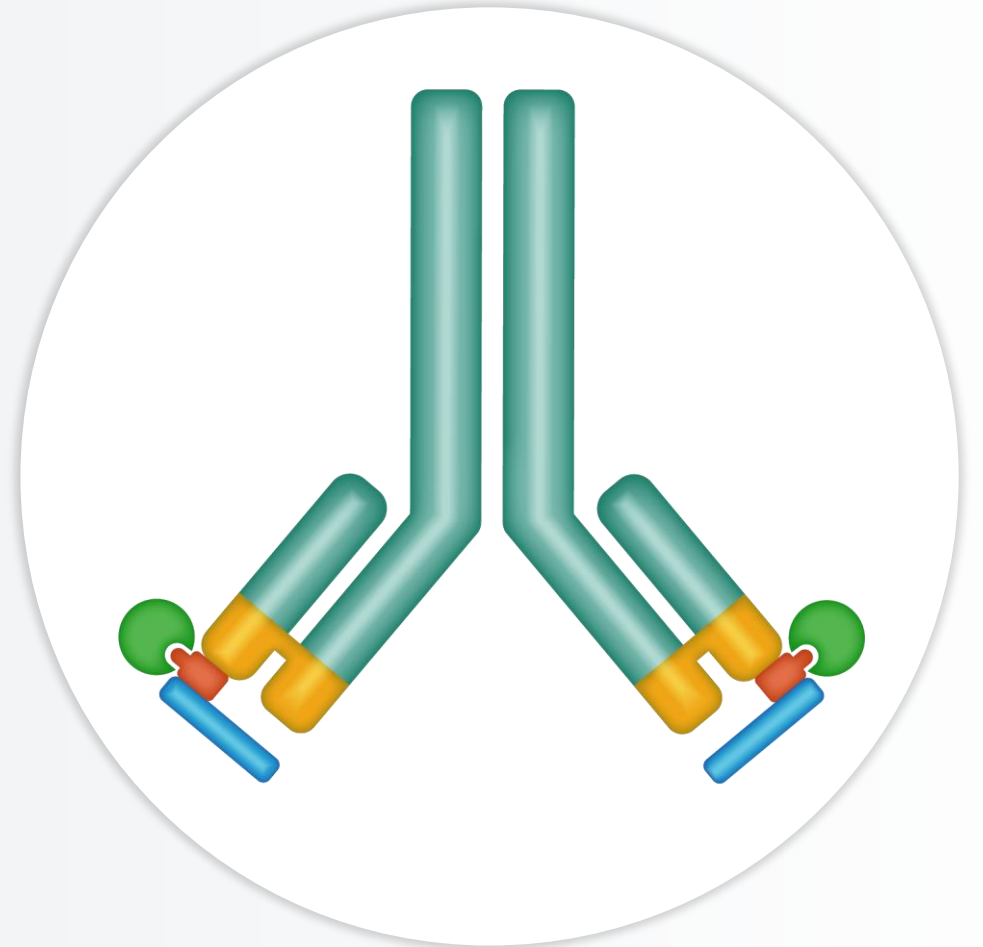
Normal Colon

Primary Colon Cancer

Metastatic Colon Cancer

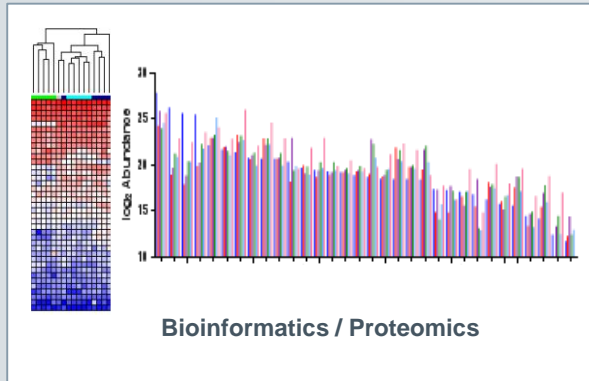
Design of Probody Therapeutics

- Mask and protease substrates identified by proprietary peptide display technology
 - Mask is customized for each antibody
 - Protease substrate activatable by multiple tumor-associated proteases
- Both mask and protease substrate can be “tuned” to optimize for given target or format
- Efficient platform manufacturing processes established

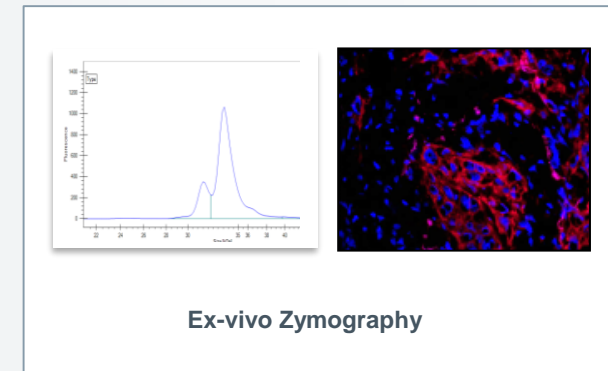
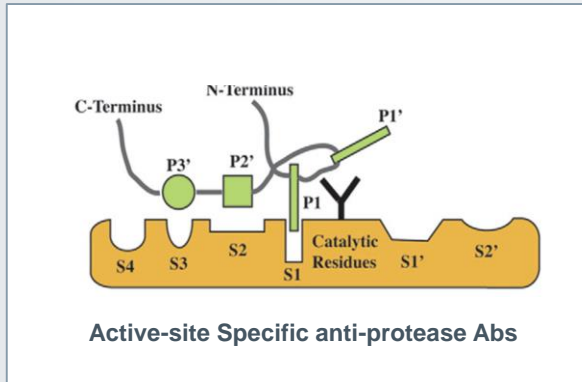


CytomX has Developed Deep Protease Expertise and Novel Methods to Probe the Tumor Microenvironment

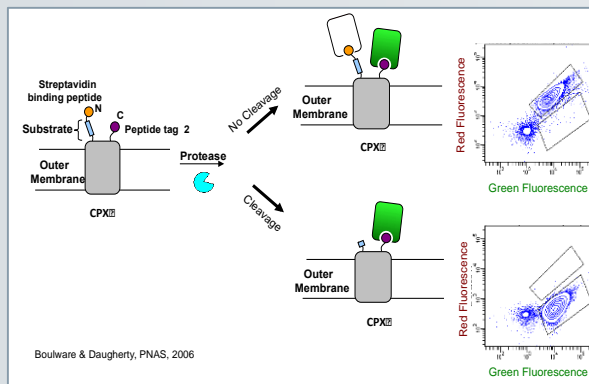
Characterizing Protease Expression



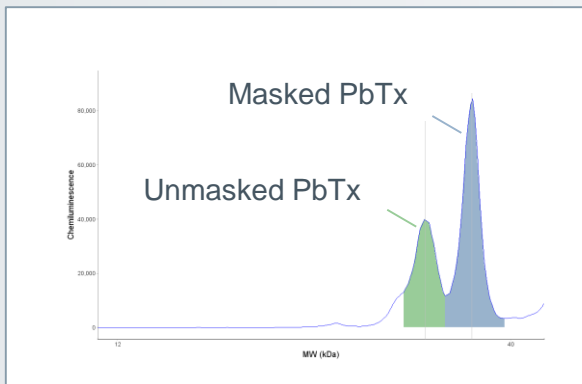
Identifying Active Proteases in Tissues



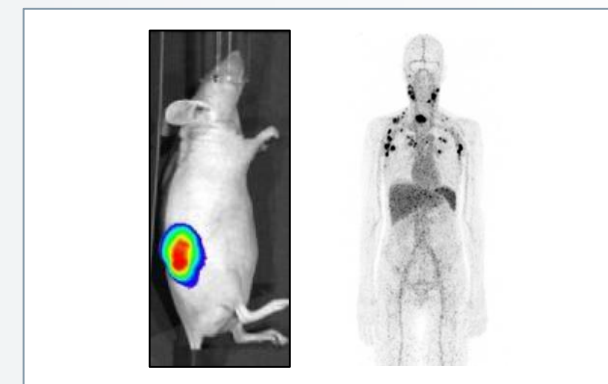
Novel Protease Substrate Discovery



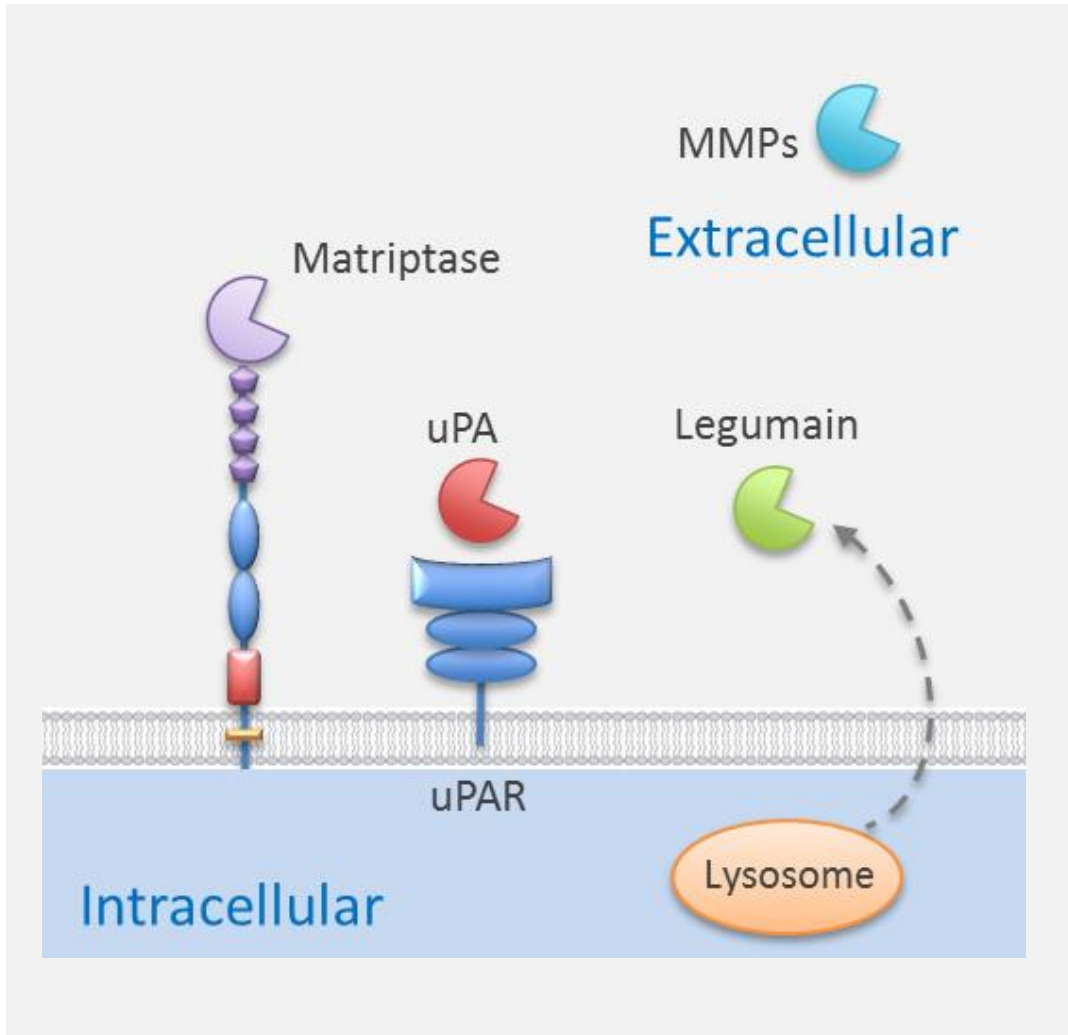
Activation of PbTx in Tumors



Imaging of PbTx in Vivo



Selection of Protease Substrates for Probody Therapeutics



Lead Substrate Criteria:

- Literature and experimental evidence in human tumors
- Limited cleavage in circulation/normal tissues
- “Universal” cleavage in different tumors
- Can demonstrate widened therapeutic index

Targeted Proteases Include:

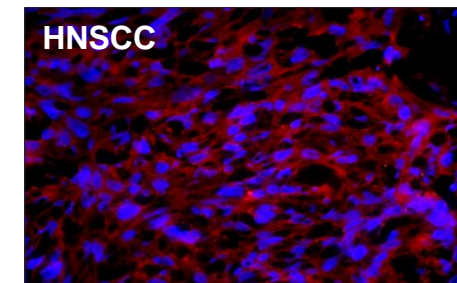
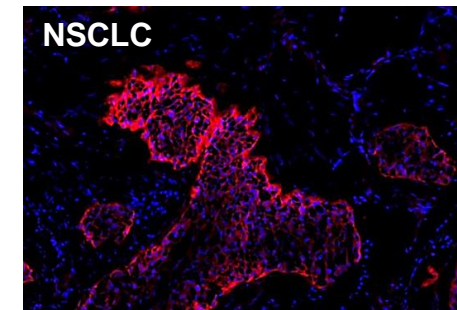
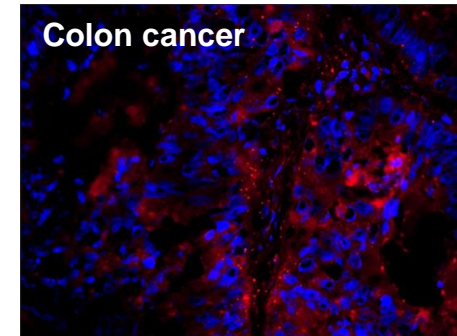
- Matriptase (MT-SP1) – membrane serine protease
- uPA – secreted serine protease
- Legumain – secreted lysosomal protease
- MMPs - secreted or membrane bound
- Others not disclosed

urokinase-type plasminogen activator (uPA)
matrix metalloproteinases (MMPs)

Probody Therapeutics are Designed to be Activated by Most Human Tumors

ASSAYS FOR EX VIVO PROBODY ACTIVATION, n=295

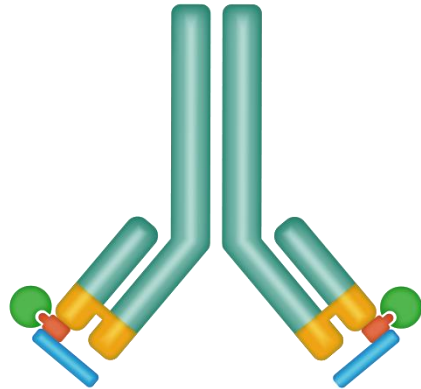
INDICATIONS	% POSITIVE PATIENTS
NSCLC	>90%
CRC	>90%
Pancreatic Cancer	>90%
Breast Cancer	>90%
Prostate Cancer	>90%
HNSCC	>90%
Ovarian Cancer	100%
RCC	90%
Bladder Cancer	100%
Melanoma	>90%
Cholangioma	88%
Endometrial Cancer	65%
Thymoma Cancer	100%



Red indicates
activated PbTx

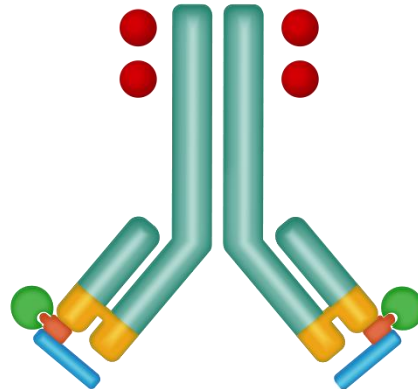
Probody Platform is Potentially Applicable Across Multiple Modalities

IMMUNE MODULATORS/
CHECKPOINT INHIBITORS



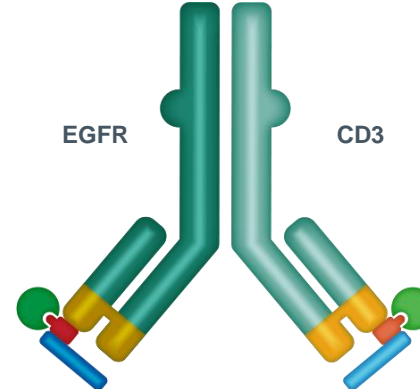
PD-L1 (CX-072)
CTLA-4 (BMS-986249)

ANTIBODY
DRUG CONJUGATES



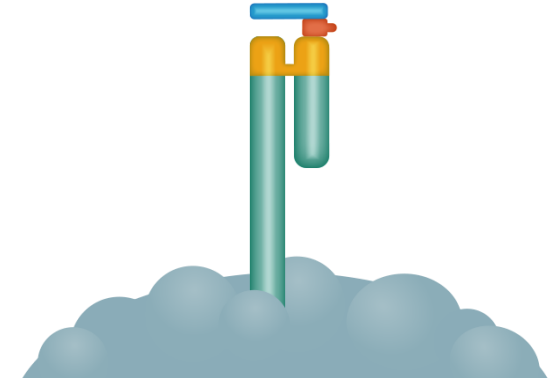
CD166 (CX-2009)
CD71 (CX-2029)

T-CELL
BISPECIFICS



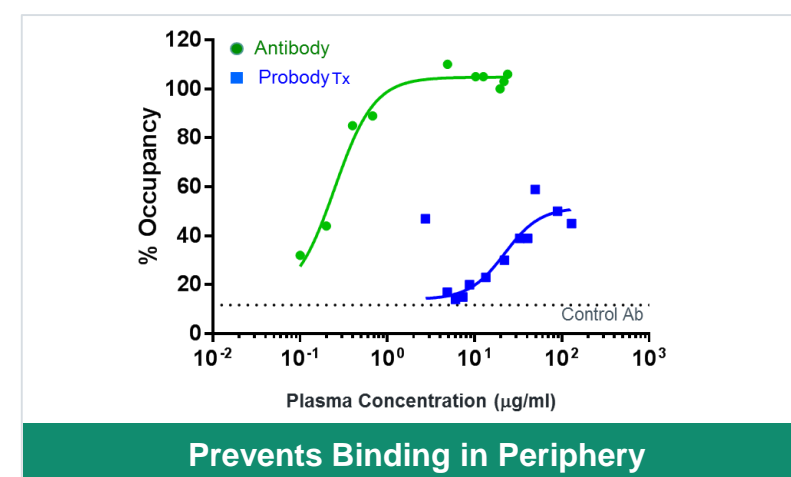
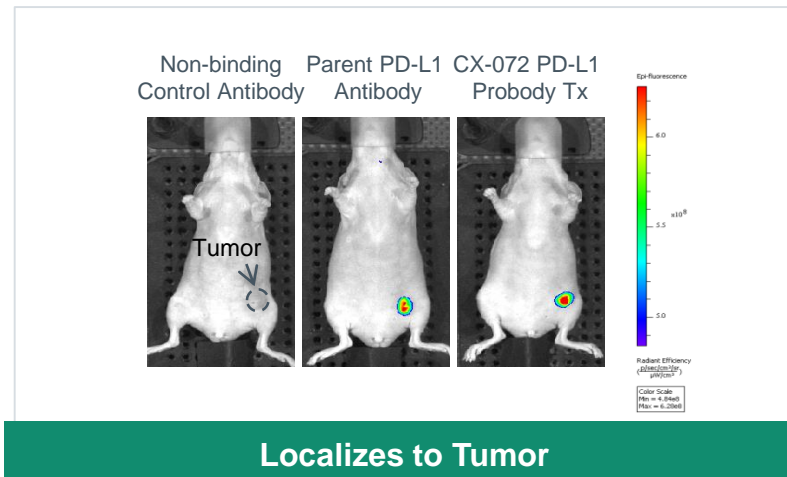
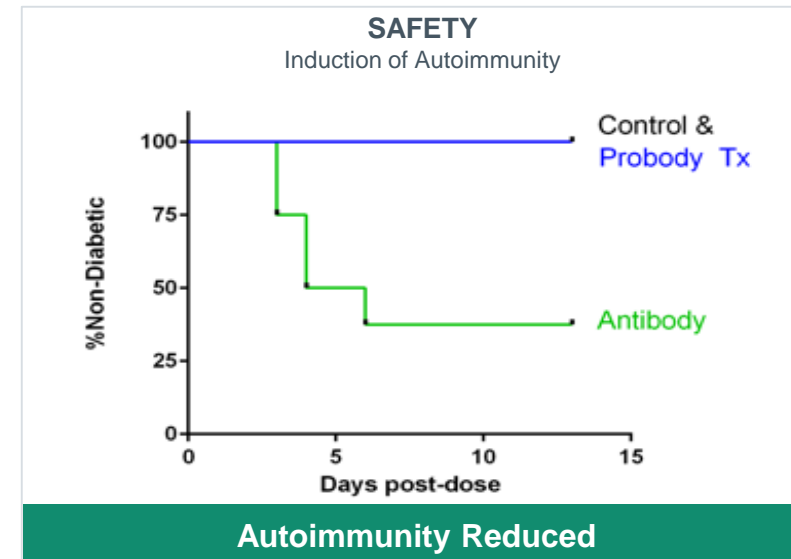
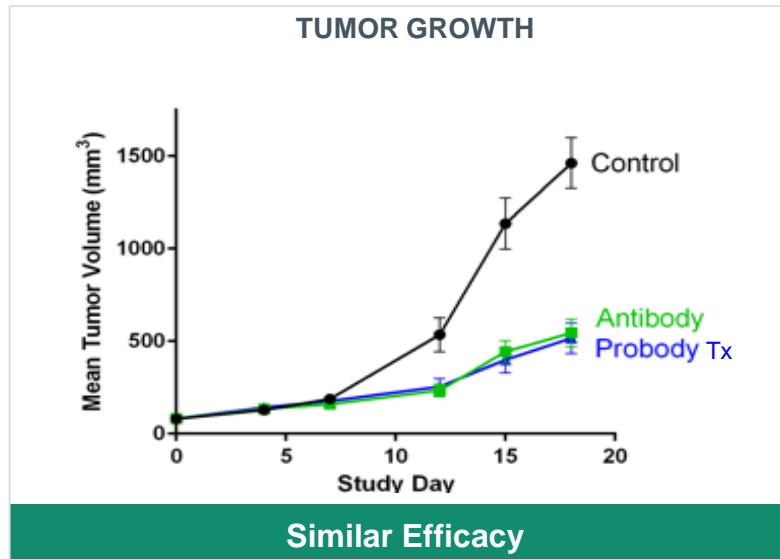
EGFR-CD3

CARS



DISCOVERY STAGE

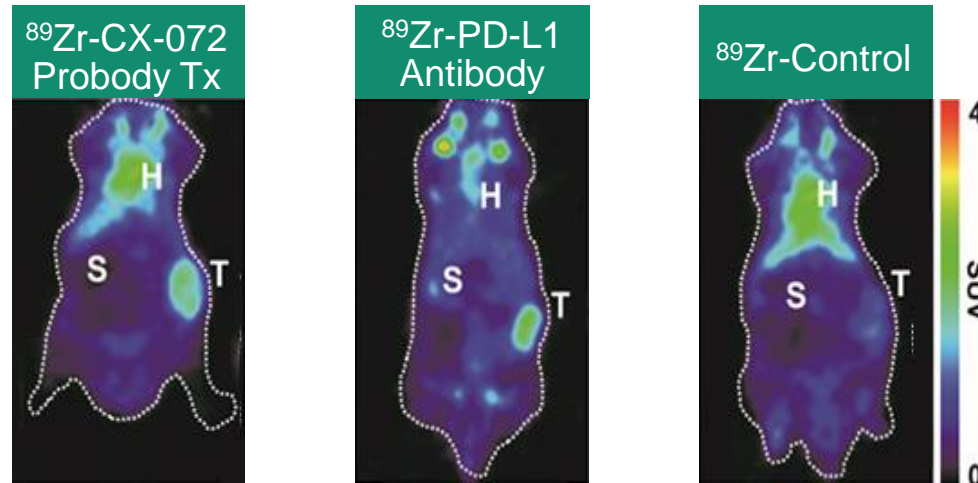
CX-072 Preclinical Proof-of-Concept: Potent Efficacy with Improved Safety



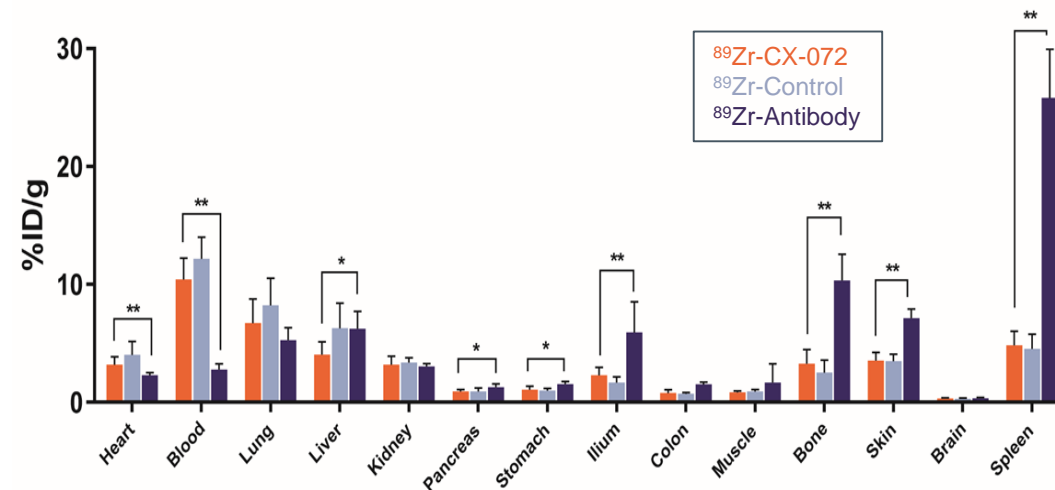
⁸⁹Zr-Labeled CX-072 Concentrates and is Activated in Tumor but Not in Normal Tissues in a Mouse Model

CX-072 Concentrates in Tumors

CX-072
Distribution to
Normal Tissues
is Similar to Non-
binding Control

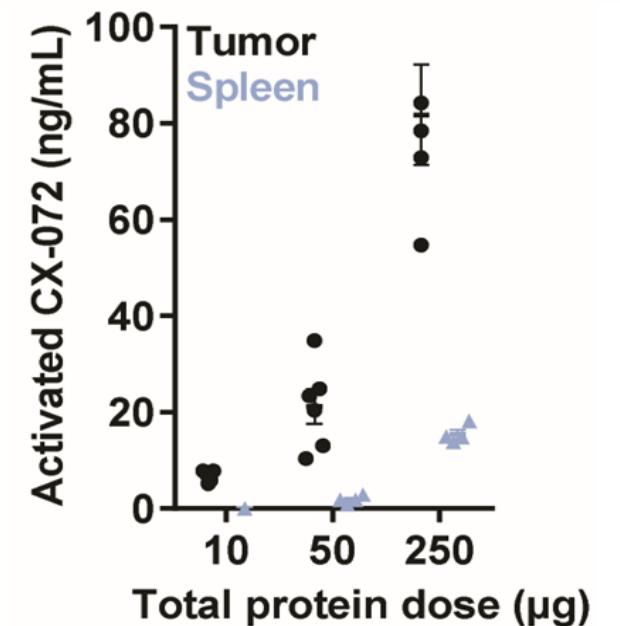


T= tumor S = spleen H = heart



In collaboration with Prof. de Vries, University Medical Center Groningen (UMCG)

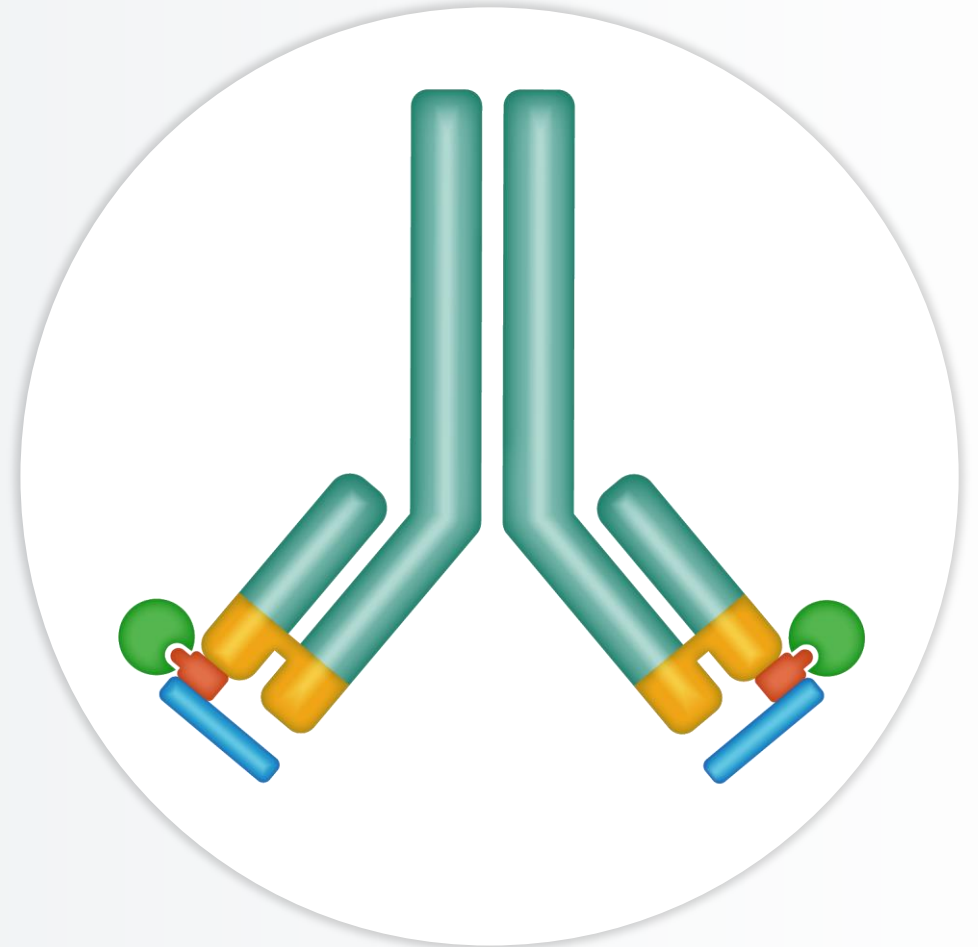
CX-072 IS PREFERENTIALLY ACTIVATED IN TUMORS



MDA-MB-231 xenografts in BALB/c nude mice
Giesen, et al TAT 2019

Probody Platform Summary

- Fully recombinant, protease-activatable antibody prodrugs
- Potentially can widen or create therapeutic index to enable potent therapeutic mechanisms
- CytomX has developed deep protease expertise and a wide array of tools for characterizing the tumor microenvironment
- Manufacturing process successfully executed at clinical scale for multiple programs
- Versatile platform: Preclinical Proof-of-Concept established in multiple programs and therapeutic modalities





CX-072

A Differentiated Anti-PD-L1 Probody Therapeutic

Rachel Humphrey, M.D.
Chief Medical Officer



CX-072: An Investigational Probody Therapeutic with the Potential to be the a Differentiated PD-Pathway Inhibitor

PD-pathway inhibitor market
expected to exceed
\$40B by 2022*

- Potent immunotherapies approved to treat a wide range of common tumors
- Inflammatory side effects likely limit the class's full potential
- Safer, effective agents are needed

Today's update reinforces
that CX-072 behaves in the
clinic as designed

- Durable objective responses
- Safety at 10 mg/kg monotherapy to date compares favorably to historical controls:
 - Grade 3-4 TRAEs: 4% vs. 15% for other PD-pathway inhibitors
- Combination with full dose ipilimumab was generally well tolerated

Broad path to value for an active, safer PD-pathway inhibitor

CX-072 is a Potentially Differentiated Anti-PD Agent with Multiple Paths to Value Creation

MONOTHERAPY

Capture Share of
Established Indications

MONOTHERAPY

Advance into
Expanded Indications

IPIILIMUMAB (CTLA-4) COMBINATION

Established Indications

IPIILIMUMAB (CTLA-4) COMBINATION

Expanded Indications

ADDITIONAL COMBINATIONS

ESCALATION AND TRANSLATIONAL RESEARCH

A: DOSE ESCALATION

PD naïve, unselected cancer types

A2: MANDATORY BIOPSY

Selected for PD-L1 positivity

■ Enrollment completed

■ Enrollment ongoing

INITIAL COHORT EXPANSIONS (ongoing)

D: COHORT EXPANSION STUDIES

TNBC, UPS, cSCC, Anal SCC*
(Merkel cell, Small Bowel, Thymus and hTMB cancers)

ESCALATION AND TRANSLATIONAL RESEARCH

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(Merkel cell, Small Bowel, Thymus and hTMB cancers)

DOSE ESCALATION COMPLETED

- 0.1 – 30 mg/kg every 2 weeks
- MTD not reached
- 10 mg/kg selected for expansion

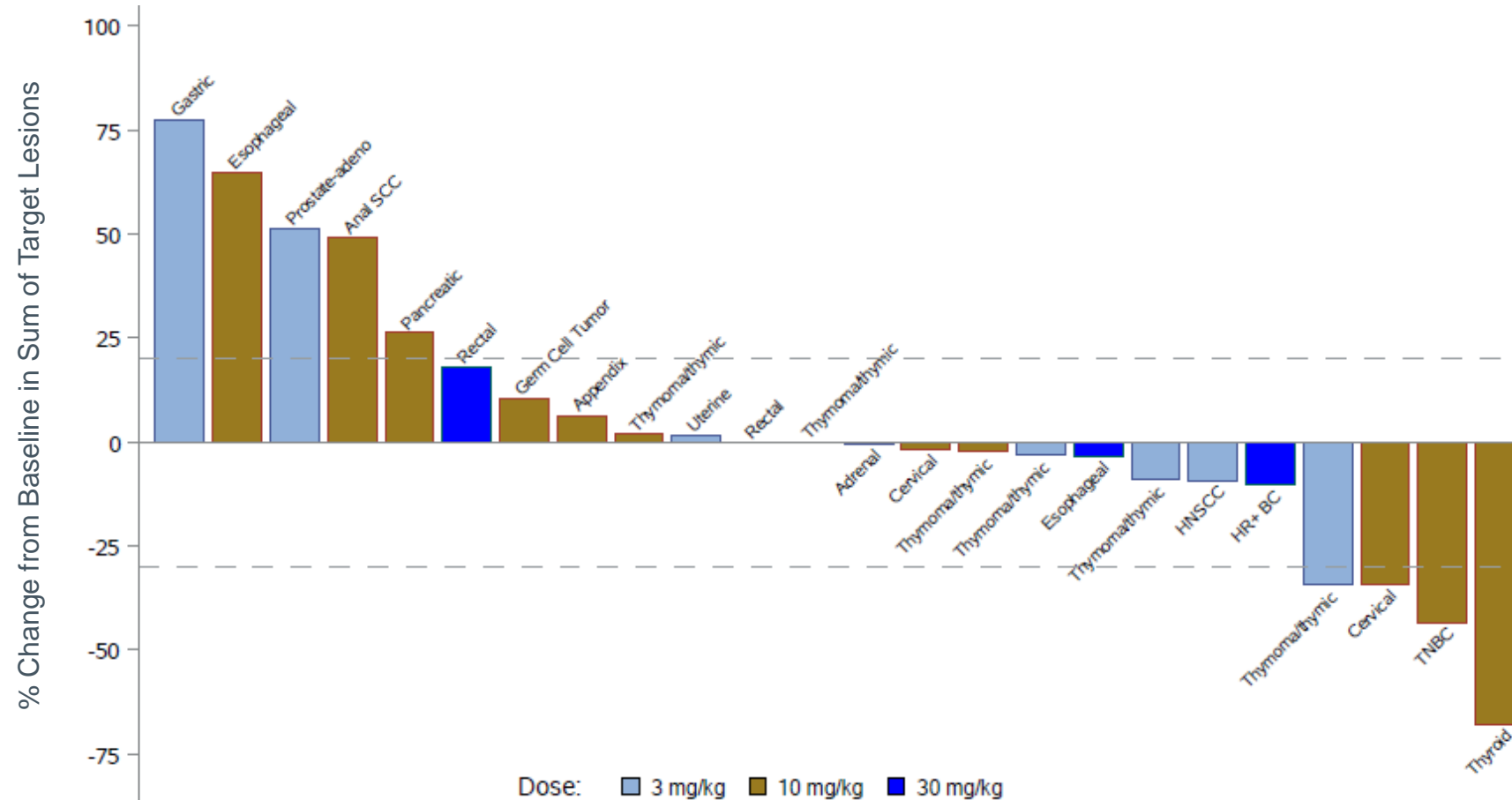
- Expansions ongoing
- Anti-tumor activity in multiple indications

* snapshot of the four cancer types shown will be shared today

* triple negative breast cancer (TNBC), undifferentiated pleomorphic sarcoma (UPS), cutaneous squamous cell carcinoma (cSCC) and anal squamous cell carcinoma (SCC)

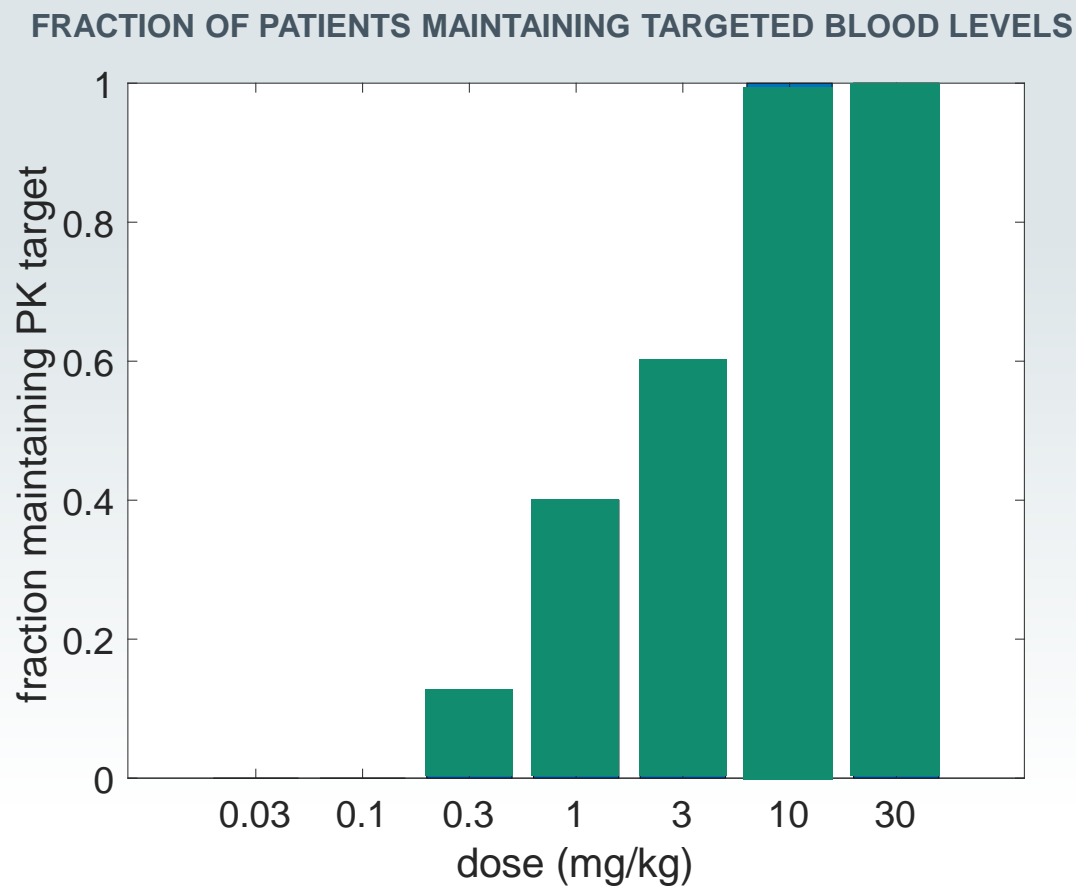
Update of Monotherapy Anti-Cancer Activity at ≥ 3 mg/kg from Dose Escalation

Best Percent Change from Baseline in Sum of Target Lesion Measurements



At 10 mg/kg every 2 weeks:

- >98% estimated tumor receptor occupancy based on biopsy data
- Favorable safety profile
- Evidence of biological activity
- 100% patients maintained targeted exposure level regardless of anti-drug antibody status*



	Total (N=50)
SUBJECTS, n(%)	
Efficacy Evaluable Population	34 (68.0)
AGE AT ENROLLMENT (YEARS)	
Median (Min-Max)	63.0 (32.0 - 80.0)
NUMBER OF PRIOR CANCER TREATMENT REGIMENS	
Median (Min-Max)	3.0 (1.0 - 10.0)
PD-L1 EXPRESSION, n(%)	
High Expression ($\geq 50\%$)	5 (10.0)
Low Expression ($\geq 1\%$ and $< 50\%$)	16 (32.0)
No Expression ($< 1\%$)	20 (40.0)
Unknown	9 (18.0)

Efficacy Evaluable Population includes treated subjects who have measurable disease at baseline and all screening target lesions assessed at one or more postbaseline visits.

* triple negative breast cancer (TNBC), undifferentiated pleomorphic sarcoma (UPS), cutaneous squamous cell carcinoma (cSCC) and anal squamous cell carcinoma (SCC)

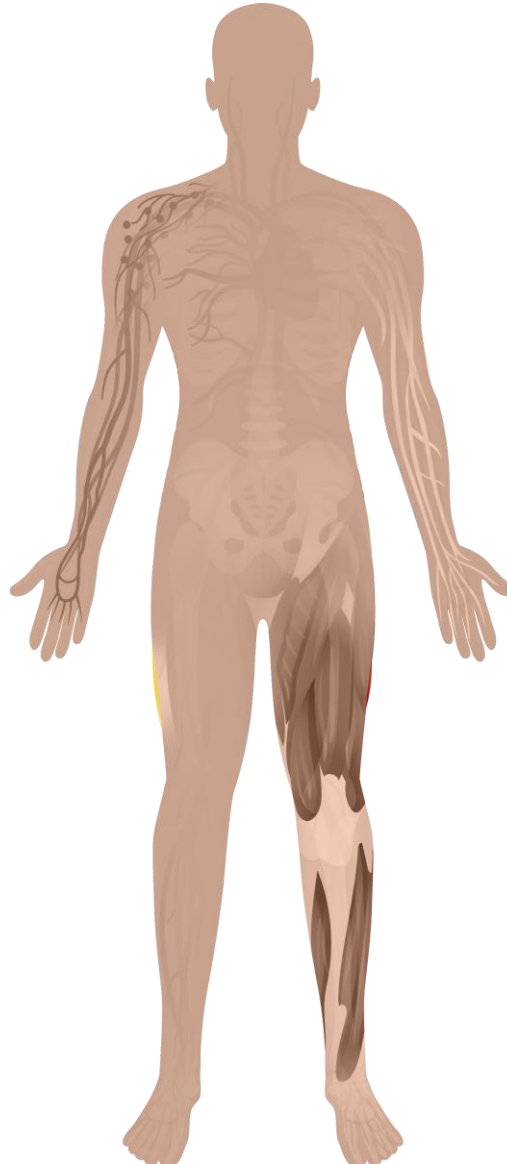
High PD-L1 expression is defined by a tumor proportion score (TPS) of membranous staining $\geq 50\%$ based on DAKO PD-L1 IHC 22C3 pharmDx. Low PD-L1 expression is defined as a TPS $\geq 1\%$ and $< 50\%$. No PD-L1 expression is defined as a TPS $< 1\%$.

Data cutoff as of February 6, 2019

Selected Cancer Types from Part D Being Presented Today

Triple negative
breast cancer
(TNBC)

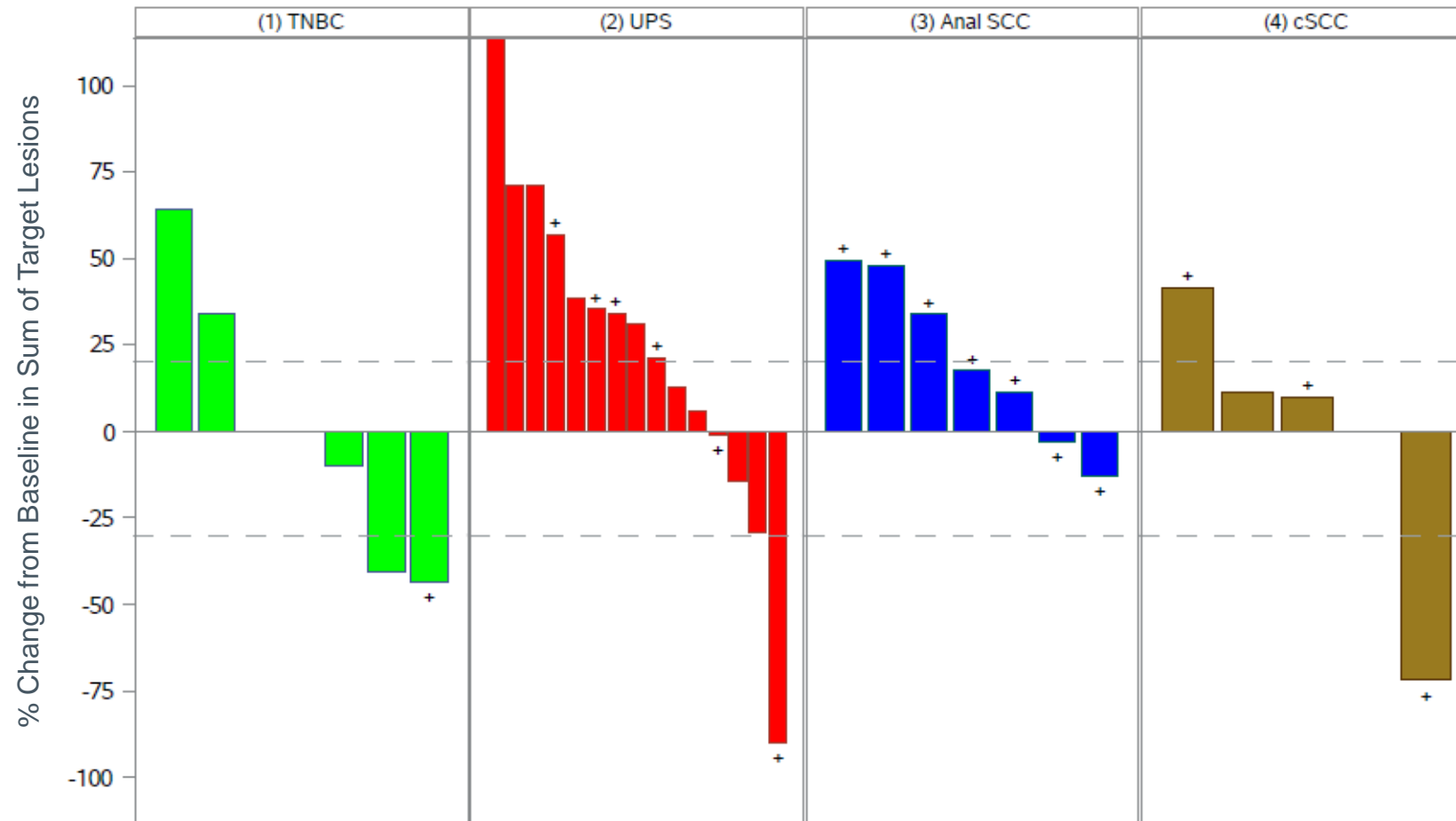
Undifferentiated
pleomorphic sarcoma
(UPS)



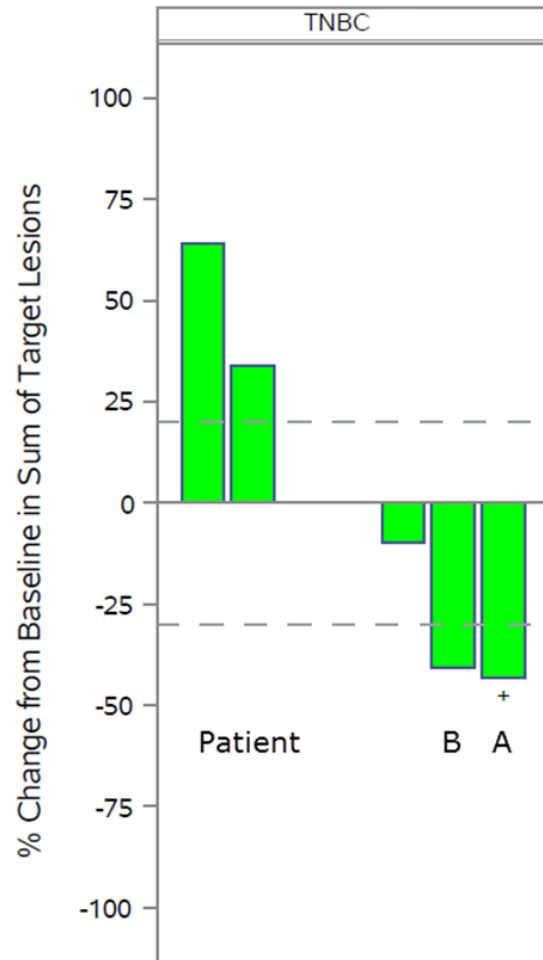
Cutaneous squamous
cell carcinoma
(cSCC)

Anal squamous
cell carcinoma
(SCC)

Best Percent Change from Baseline in Sum of Target Lesion Measurements, by Cancer Classification



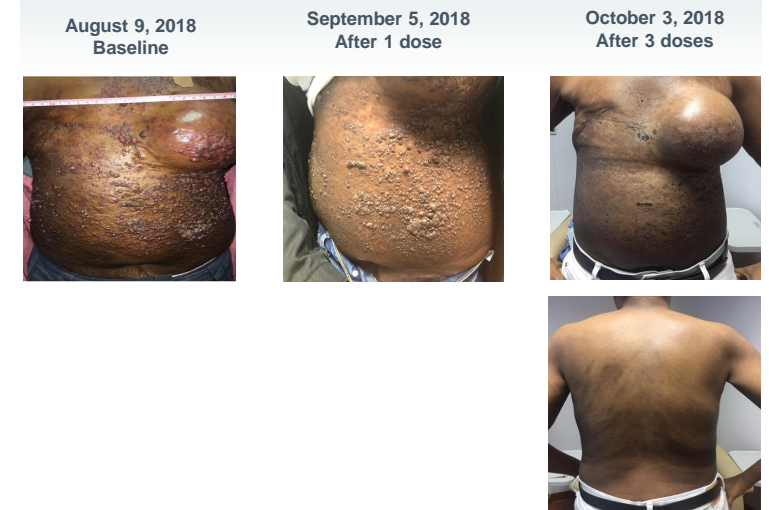
Case Study: Anti-Tumor Activity at 10 mg/kg in TNBC



**PATIENT A: TNBC WITH SKIN LESIONS (PR);
TREATMENT DURATION 72+ WEEKS**

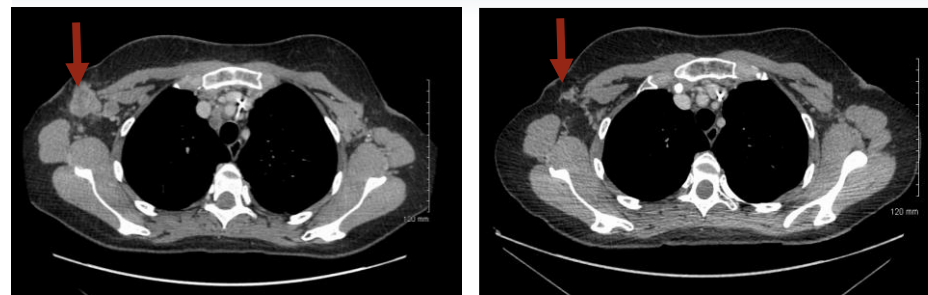


**PATIENT B: TNBC WITH SKIN LESIONS (UPR);
TREATMENT DURATION 20+ WEEKS**

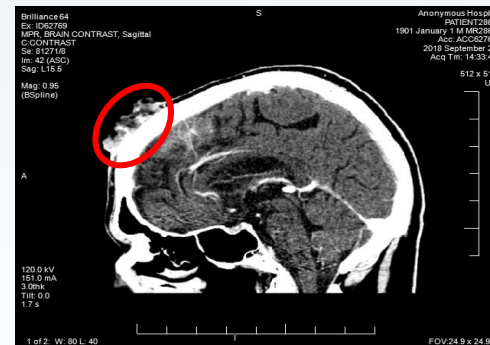
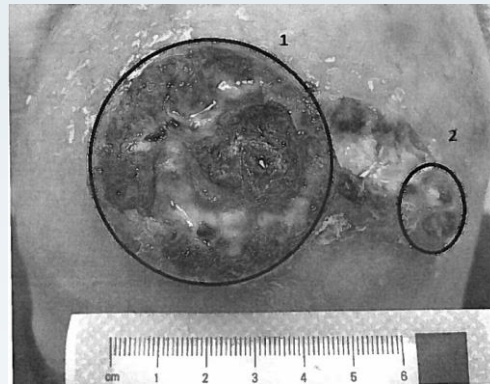


August 14, 2017
Screening Scan

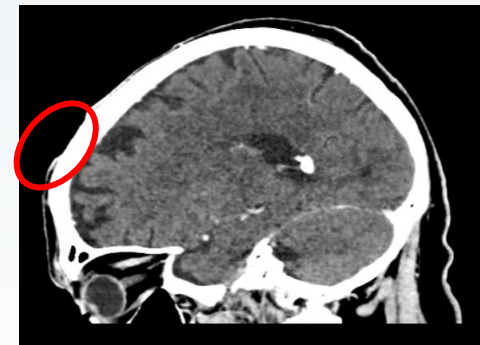
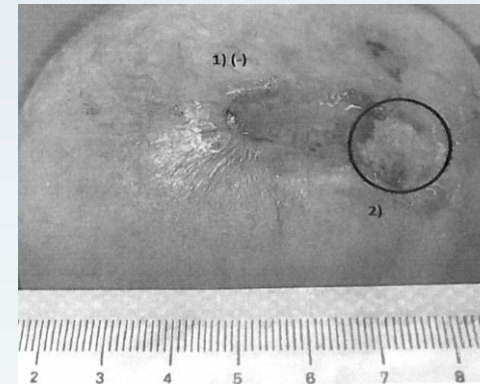
December 5, 2017
Staging Scan



CUTANEOUS SCC SCALP SKIN LESIONS (SECOND-LINE)



Baseline Scan
9/21/18



Response Scan
1/25/2019

Preliminary Safety: Monotherapy at 10 mg/kg Limited Number of Grade 3/4 TRAEs

		Total (N=50)*
NUMBER (%) OF SUBJECTS EXPERIENCING		
TEAE Grade 3+		21 (42.0)
Related to CX-072 (TRAE)		2 (4.0)
TEAE Leading to CX-072 Discontinuation		1 (2.0)
Related to CX-072 (TRAE)		0
TEAE Leading to Death		1 (2.0)
Related to CX-072 (TRAE)		0
IRRs		3 (6.0)
Grade 3+		0

* triple negative breast cancer (TNBC), undifferentiated pleomorphic sarcoma (UPS), cutaneous squamous cell carcinoma (cSCC) and anal squamous cell carcinoma (SCC) patients

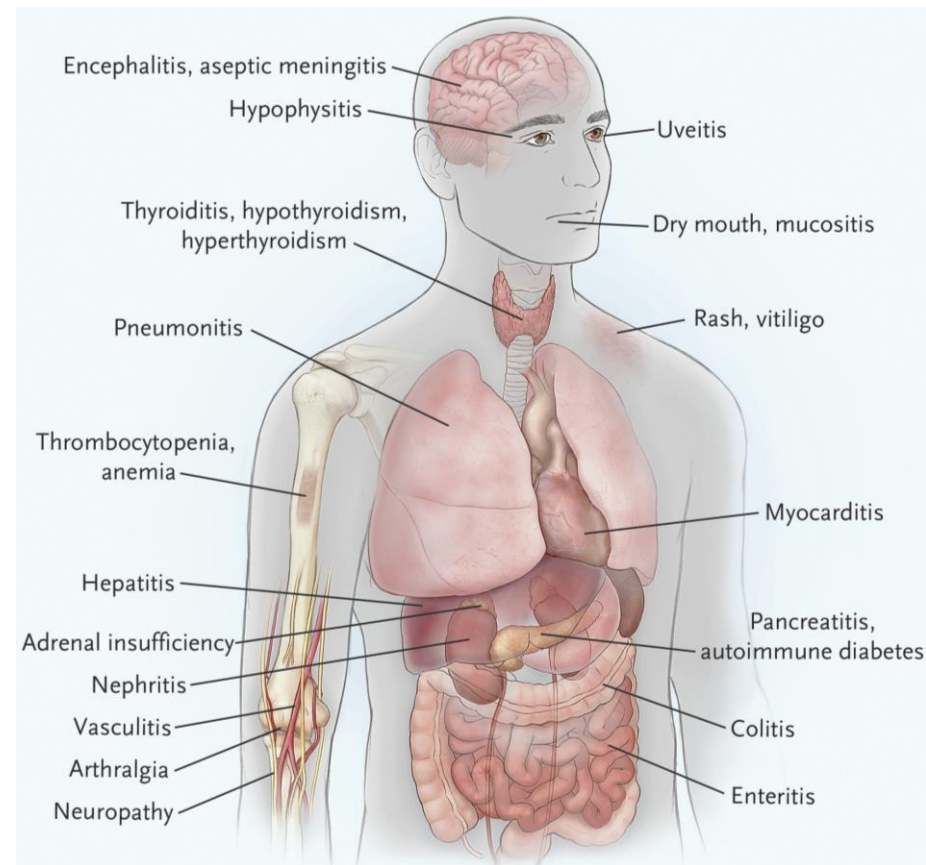
treatment emergent adverse event (TEAE), infusion-related reactions (IRR)

Data cutoff as of February 6, 2019

Preliminary Safety: Monotherapy at 10 mg/kg Limited Number of Immune-related AEs (irAEs)

Preferred Term	Total Patients (n=50)
	Grade 3+ n (%)
Subjects with an Event	2 (4.0)
Hypothyroidism	0
Acute thyroiditis	0
Dyspnea	0
ALT* increased	0
AST* increased	0
Rash maculo-popular	1 (2.0)
GGT* increased	1 (2.0)

irAEs Reported with PD Inhibitors



Postow et al NEJM 2018

Immune-related AEs (irAEs) are defined as prospectively identified treatment-related AEs that are associated with the use of systemic or topical immunosuppressive agents or hormonal supplementation

*alanine aminotransferase (ALT), aspartate aminotransferase (AST), gamma-glutamyl transferase (GGT)

Data cutoff as of February 6, 2019

CX-072 is a Potentially Differentiated Anti-PD Agent with Multiple Paths to Value Creation

MONOTHERAPY

Capture Share of
Established Indications

MONOTHERAPY

Advance into
Expanded Indications

IPIILIMUMAB (CTLA-4) COMBINATION

Established Indications

IPIILIMUMAB (CTLA-4) COMBINATION

Expanded Indications

ADDITIONAL COMBINATIONS



CX-072 + Ipilimumab (anti-CTLA-4) Combination



Full Potential for Combination Immunotherapy is Limited by Immune-Related Toxicities

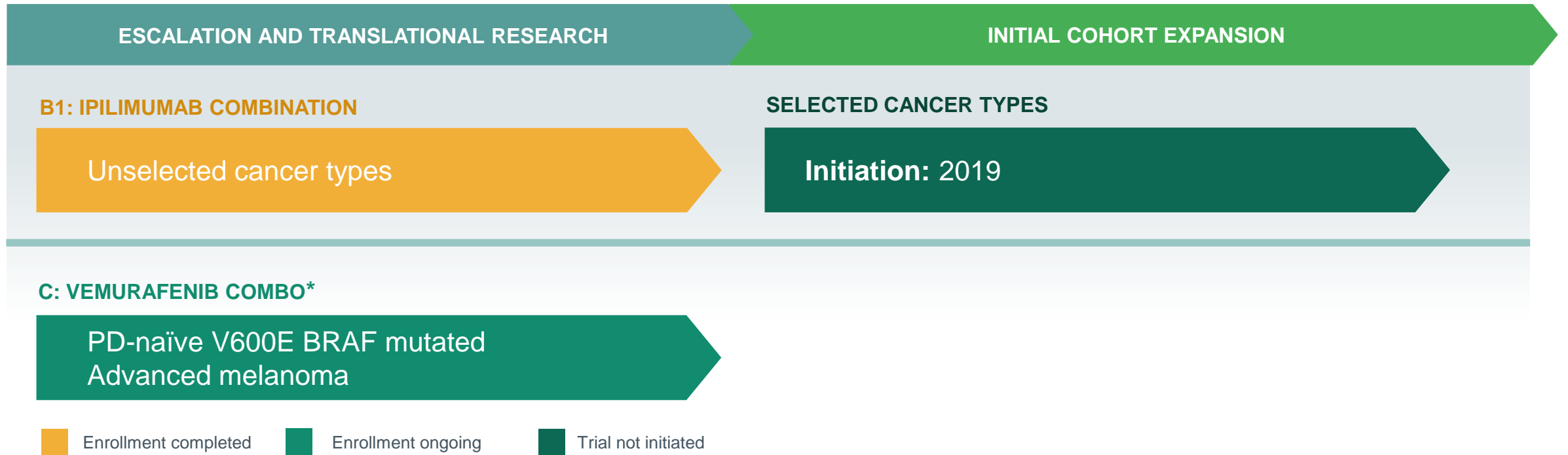
CHECKMATE 67: COMBINATION TOXICITIES

	Nivolumab Mono melanoma	Ipilimumab Mono melanoma	Nivo + Ipi Combo ¹ melanoma
	3mg/kg every 2 weeks	3mg/kg every 3 weeks	nivo 1mg/kg + ipi 3mg/kg every 3 weeks
ORR	44%	19%	58%
Treatment related Grade 3/4 AEs	16%	27%	55%
Discontinued Drug	8%	15%	36%

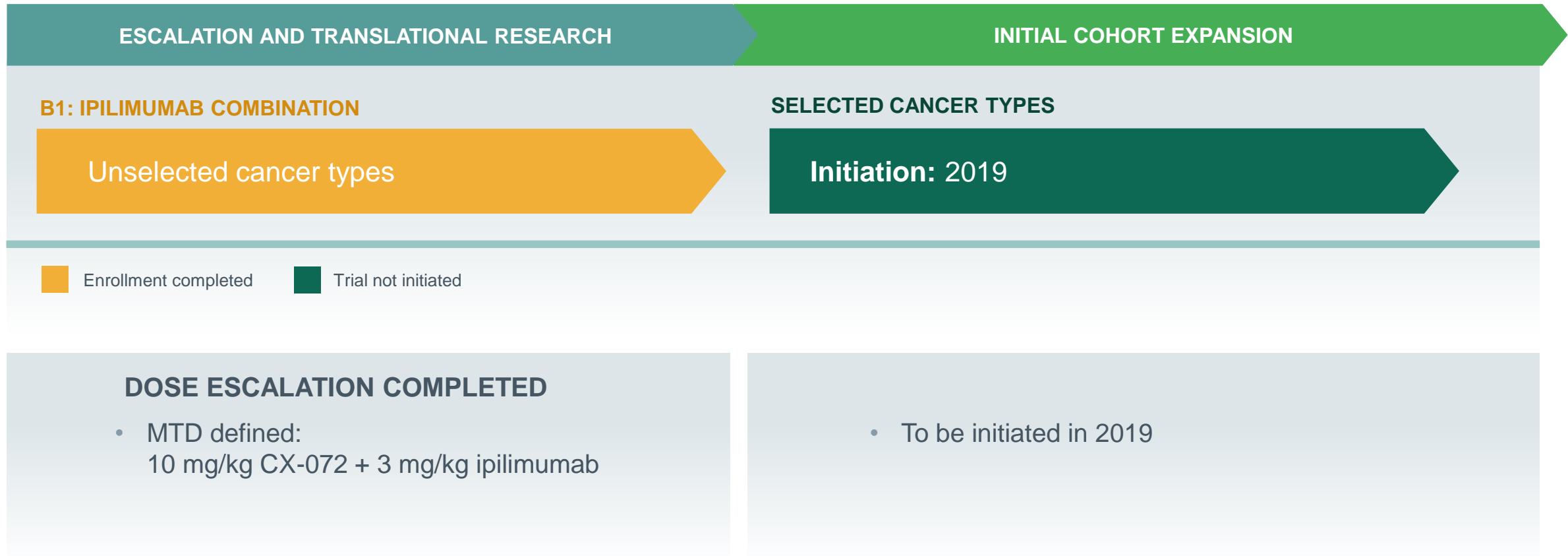
RESULTS FROM MSKCC EXPANDED ACCESS PROGRAM²

- 64 patients with advanced or unresectable melanoma
- Nivolumab (1 mg/kg) + Ipilimumab (3 mg/kg)
- 38 (59%) Grade 3/4 irAE
- 46 (72%) required steroids
- 36% irAE causing hospitalizations

CTLA-4 is the most common target evaluated in combination with PD-1/PD-L1³



Ipilimumab Combination Dose Escalation Now Complete

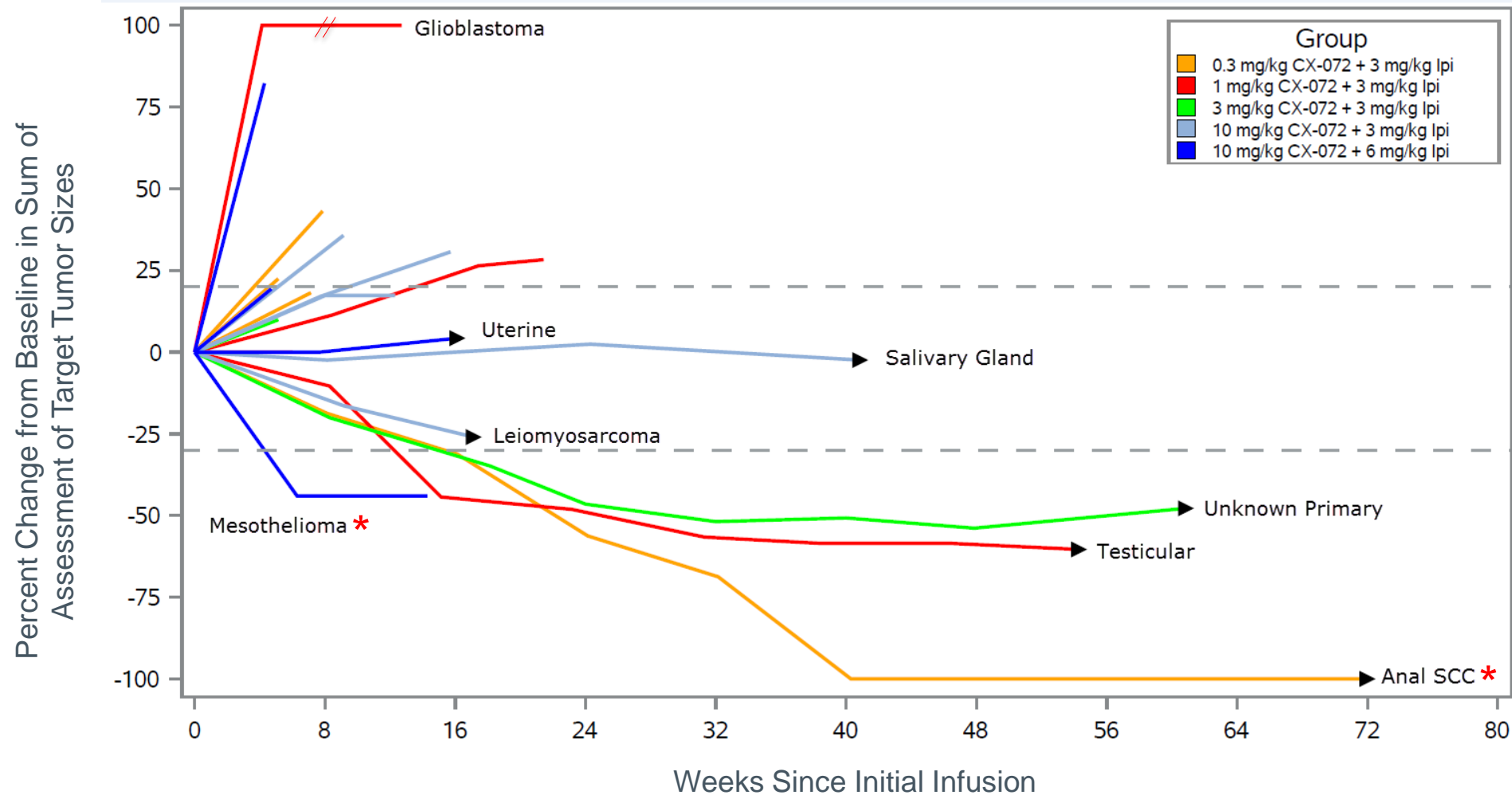


CX-072 plus Ipilimumab Combination: Patient Population

	Total (N=27)	10 mg/kg CX-072 +3 mg/kg Ipilimumab (N=8)
SUBJECTS, n(%)		
Efficacy Evaluable Population	19 (70.4)	5 (62.5)
AGE AT ENROLLMENT (YEARS)		
Median (Min-Max)	56.0 (28.0 - 70.0)	58.0 (36.0 - 61.0)
NUMBER OF PRIOR CANCER TREATMENT REGIMENS		
Median (Min-Max)	3.0 (1.0 - 10.0)	3.0 (1.0 - 6.0)
PD-L1 EXPRESSION, n(%)		
High Expression ($\geq 50\%$)	0	0
Low Expression ($\geq 1\%$ and $< 50\%$)	5 (18.5)	1 (12.5)
No Expression ($< 1\%$)	16 (59.3)	5 (62.5)
Unknown	6 (22.2)	2 (25.0)

CX-072 doses: 0.3, 1, 3, 10 mg/kg; ipilimumab doses 3, 6, 10 mg/kg. 2 DLTs observed with 10 mg/kg CX-072 and 6 mg/kg ipilimumab defined this dose level to be above the MTD

CX-072 plus Ipilimumab Combination: Durable Responses Observed



CX-072 plus Ipilimumab Combination: Clinically Manageable Safety Profile Compares Favorably to Historical Controls*

	Total (N=27)	10 mg/kg CX-072 +3 mg/kg Ipilimumab (N=8)
NUMBER (%) OF SUBJECTS EXPERIENCING		
TEAE Grade 3+	14 (51.9)	4 (50.0)
Related to CX-072 (TRAE)	7 (25.9)	2 (25.0)
TEAE Leading to CX-072 Discontinuation	1 (3.7)	0
Related to CX-072 (TRAE)	1 (3.7)	0
TEAE Leading to Death	0	0
Related to CX-072 (TRAE)	0	0
IRRs	4 (14.8)	2 (25.0)
Grade 3+	1 (3.7)	1 (12.5)

* Larkin et al., NEJM, July 2015.
treatment emergent adverse event (TEAE), infusion-related reactions (IRR)
Data cutoff as of February 6, 2019

CX-072 plus Ipilimumab Combination: Rate of irAEs Compares Favorably to Historical Controls*

Preferred Term	Total Patients (n=27)	10 mg/kg CX-072 + 3 mg/kg Ipilimumab (n=8)
	Grade 3+ n (%)	Grade 3+ n (%)
Subjects with an Event	3 (11.1)	0
Pruritus generalised	0	0
Hyperthyroidism	0	0
Hypothyroidism	0	0
Colitis	2 (7.4)	0
Hypophysitis	0	0
Pneumonitis	1 (3.7)	0
Pruritus	0	0
Rash maculo-popular	0	0
Diarrhea	0	0
Immune-mediated hepatitis	0	0

CX-072 is a Potentially Differentiated Anti-PD Agent with Multiple Paths to Value Creation

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Established Indications

IPIILIMUMAB (CTLA-4) COMBINATION

Expanded Indications

ADDITIONAL COMBINATIONS



CX-2009

A Probody Drug Conjugate with First-in-Class Potential

Michael Kavanaugh, M.D.
Chief Scientific Officer and Head of Research
and Non-Clinical Development

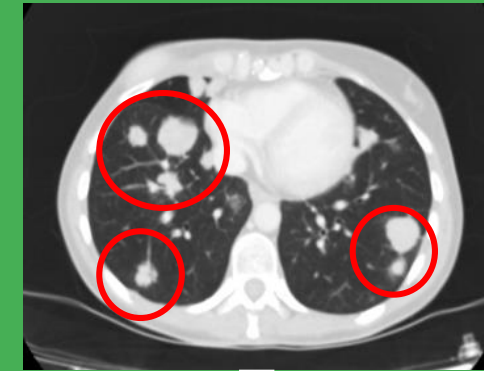
Rachel Humphrey, M.D.
Chief Medical Officer



CX-2009 is an Investigational First-in-Class Anti-CD166 Probody Drug Conjugate with Broad Market Potential

- CD-166 is highly expressed in both cancers and normal tissues
 - Probody platform enables the potential development of this attractive but undruggable target
 - Highly expressed by many different tumors
- SPDB-DM4 payload
 - Clinically validated with historical benchmarks
 - Active in a wide variety of tumors
- Early clinical data suggest CX-2009 is active and safe
 - Anti-cancer activity at doses as low as 4 mg/kg
 - Dose escalations as high as 10 mg/kg

TUMOR SHRINKAGE IN METASTATIC BREAST CANCER PATIENT TREATED WITH CX-2009



The Probody Platform Potentially Enables an Attractive Class of ADC Targets

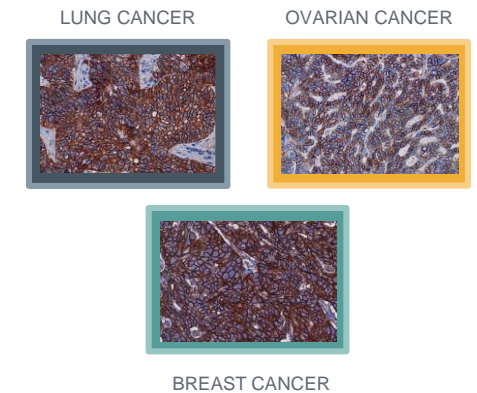
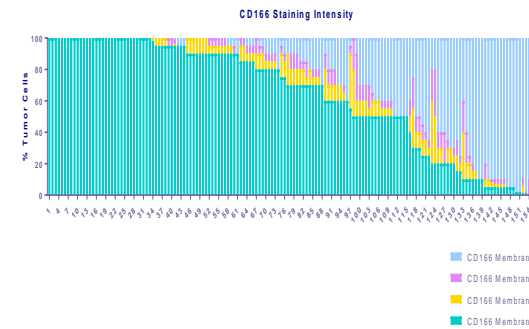
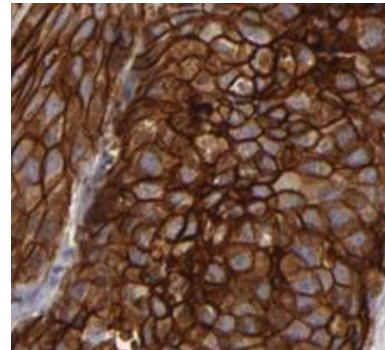
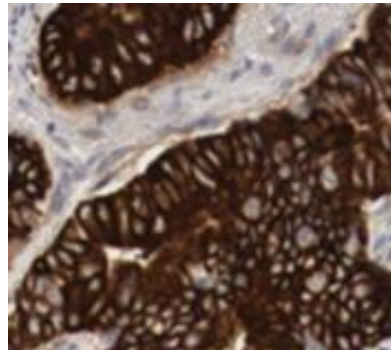
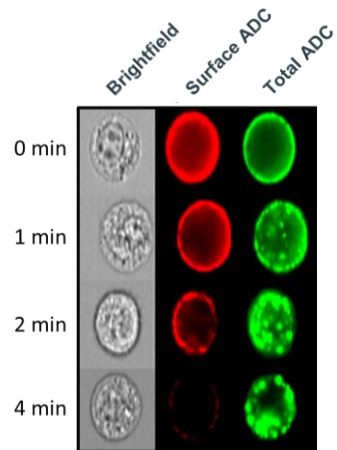
**Best
Internalizing
Targets**

**Highest Possible
Membrane
Expression**

**Uniform Tumor
Expression**

**Majority Patients
Express at High Level**

**Highly Expressed in
Multiple Common
Cancers**



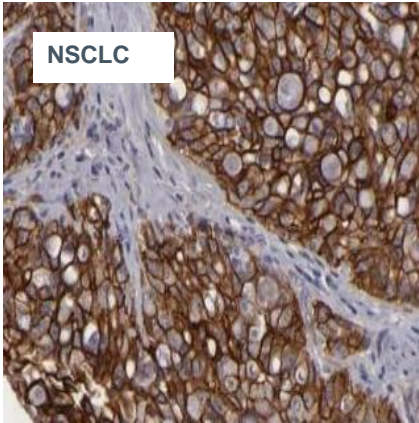
These targets are typically expressed highly in normal tissues = not suitable for traditional ADC

CD166 is Highly Expressed in Many Human Cancers and in Normal Tissues

CANCERS

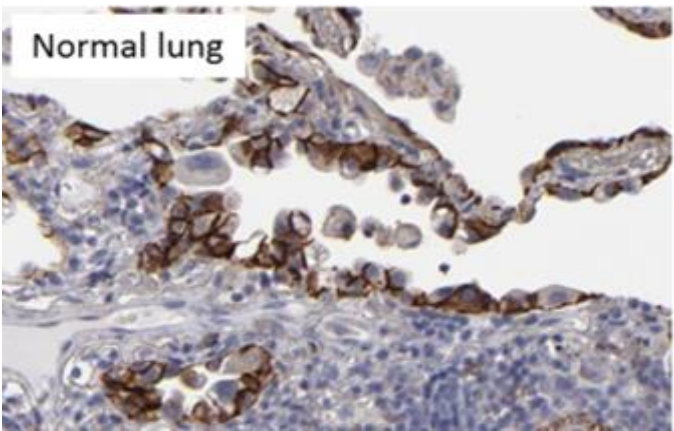
PROCLAIM
CX-2009

	Commercial Samples	Samples
	% Patients with highest CD166 expression (IHC 3+)	
Prostate	89% (n=119)	0% (n=2)
Breast	70% (n=533)	79% (n=95)
NSCLC	60% (n=465)	64% (n=22)
Endometrial	57% (n=315)	67% (n=3)
Ovarian	52% (n=129)	59% (n=107)
HNSCC	49% (n=122)	62% (n=21)

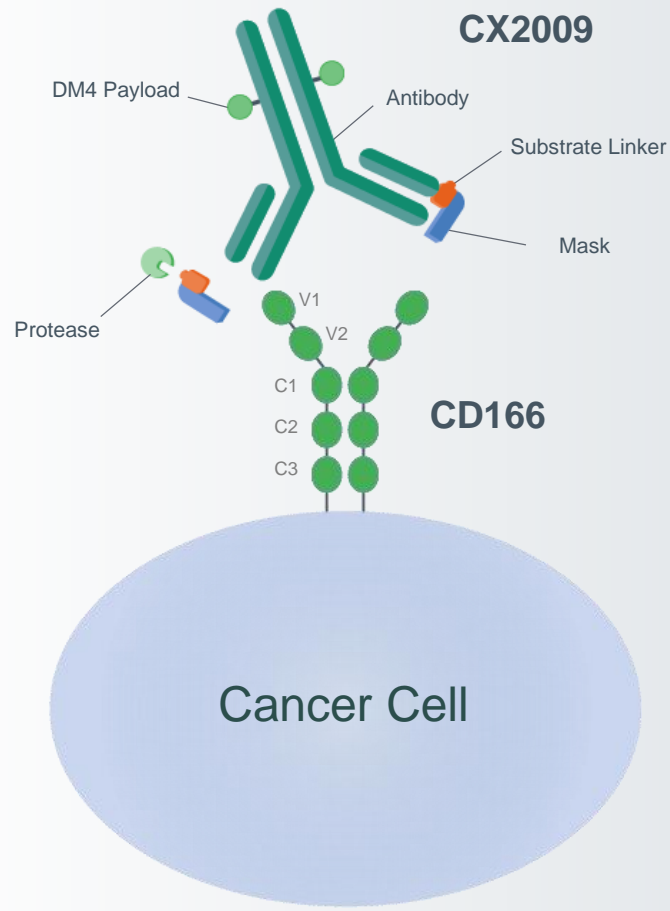


NORMAL TISSUES

CD166 Expression by IHC			
Breast	2+	Pancreas	2+
Colon	2+	Prostate	3+
Liver	2+	Small Intestine	2+
Lung	1+	Stomach	3+
Ovary	1+	Uterus	2+



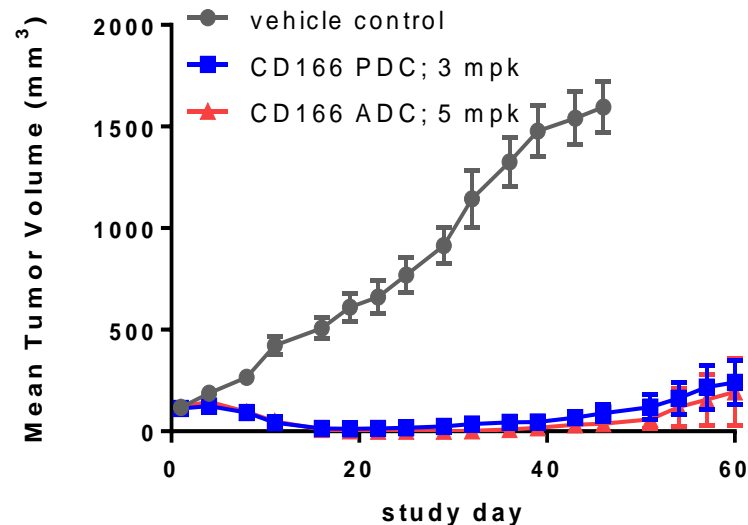
CX-2009: A Probody Drug Conjugate Targeting CD166



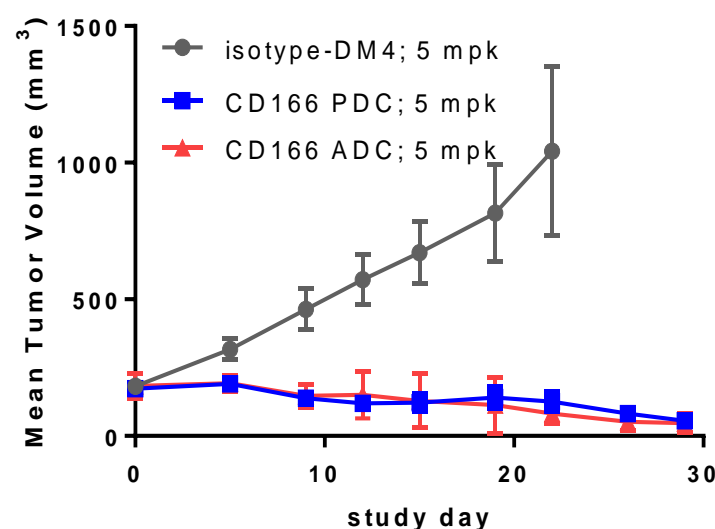
- Probody technology applied to proprietary anti-CD166 antibody
- SPDB-DM4 payload
 - Microtubule inhibitor active vs. multiple cancers
 - Expected DM4-related, off-target toxicities well characterized, including
 - ocular toxicity
 - neutropenia
 - peripheral neuropathy
 - CD166-predominant on-target toxicities should be recognized

CX-2009 is Highly Active and Well-tolerated in Preclinical Models

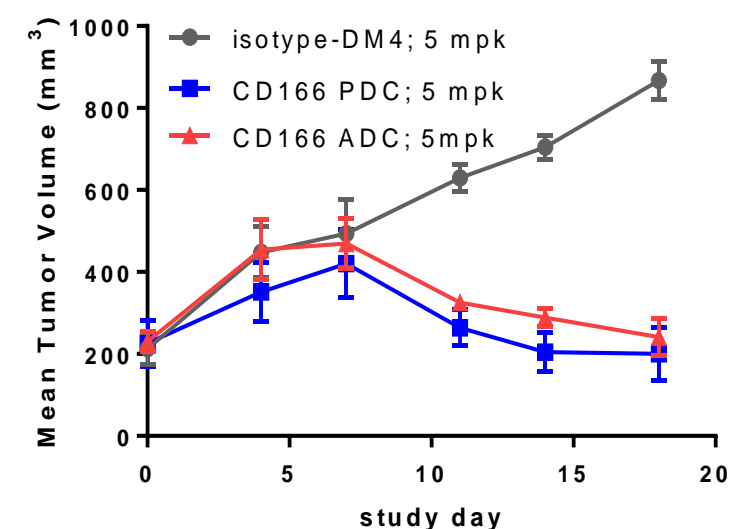
HCC1806 tumor model (TNBC)



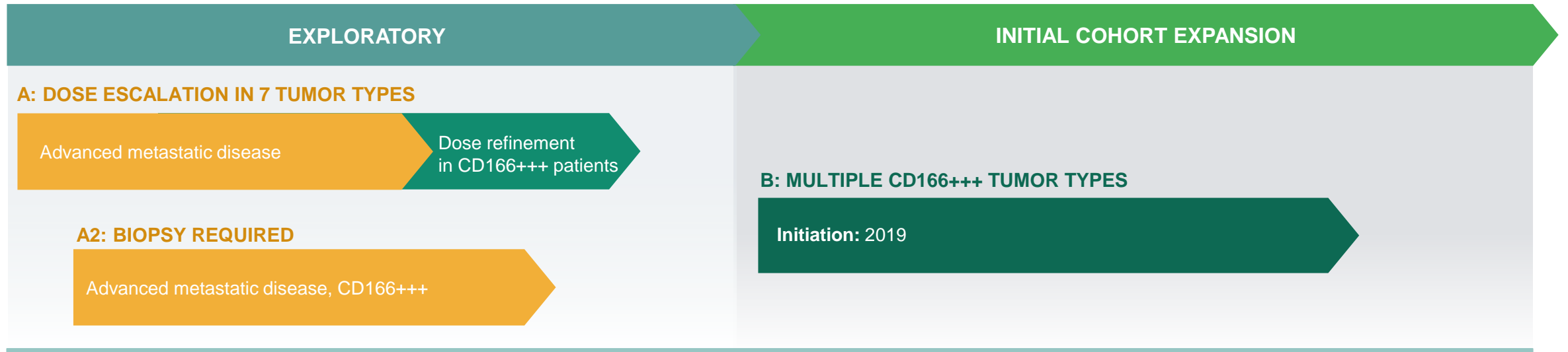
H292 tumor model (NSCLC)



Ovarian PDX model



- CX-2009 active in multiple mouse xenograft and PDX models at doses $\leq 5\text{mg/kg}$
- Non-clinical safety observations consistent with typical off-target, DM4 payload toxicity at up to 15 mg/kg

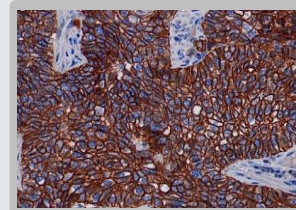


■ Enrollment completed
 ■ Enrollment ongoing
 ■ Trial not initiated

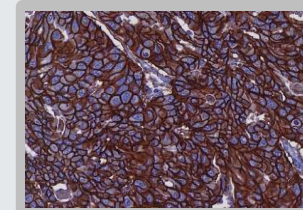
SEVEN TUMOR TYPES IN MONOTHERAPY DOSE ESCALATION ARM:

- Breast cancer
- Castration-resistant prostate cancer
- Cholangiocarcinoma
- Endometrial cancer
- Head and neck cancer
- Non-small cell lung cancer
- Ovarian cancer

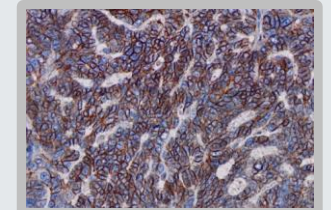
LUNG CANCER



BREAST CANCER



OVARIAN CANCER



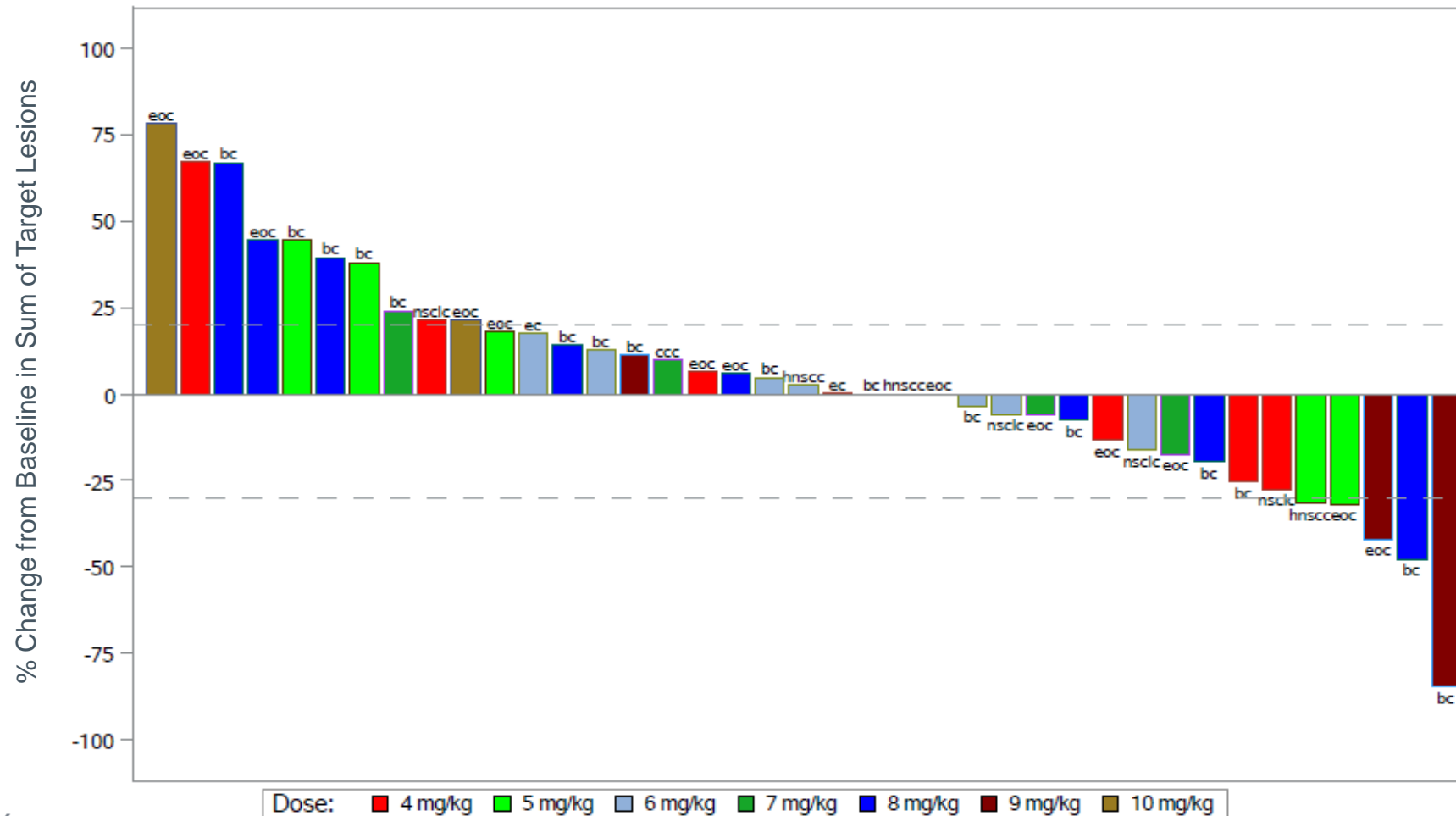
Total (N=76)	
SUBJECTS, n(%)	
Efficacy Eligible Population	46 (60.5)
AGE AT ENROLLMENT (YEARS)	
Median (Min-Max)	57.5 (31.0 - 79.0)
NUMBER OF PRIOR CANCER TREATMENT REGIMENS	
Median (Min-Max)	6.0 (1.0 – 22.0)
CD166 STATUS AT BASELINE, n(%)	
High Expression	55 (72.4)
Low Expression	13 (17.1)
Unknown	8 (10.5)
HISTORY OF ANTI-PD-1/PD-L1, n(%)	
Yes	24 (31.6)
No	52 (68.4)

High CD166 expression is defined as immunohistochemistry (IHC) staining of 50.0% of tumor cell staining at 3+ intensity.
 Low CD166 expression is not High CD166 expression. Only membrane-associated staining within tumor cells will be evaluated.

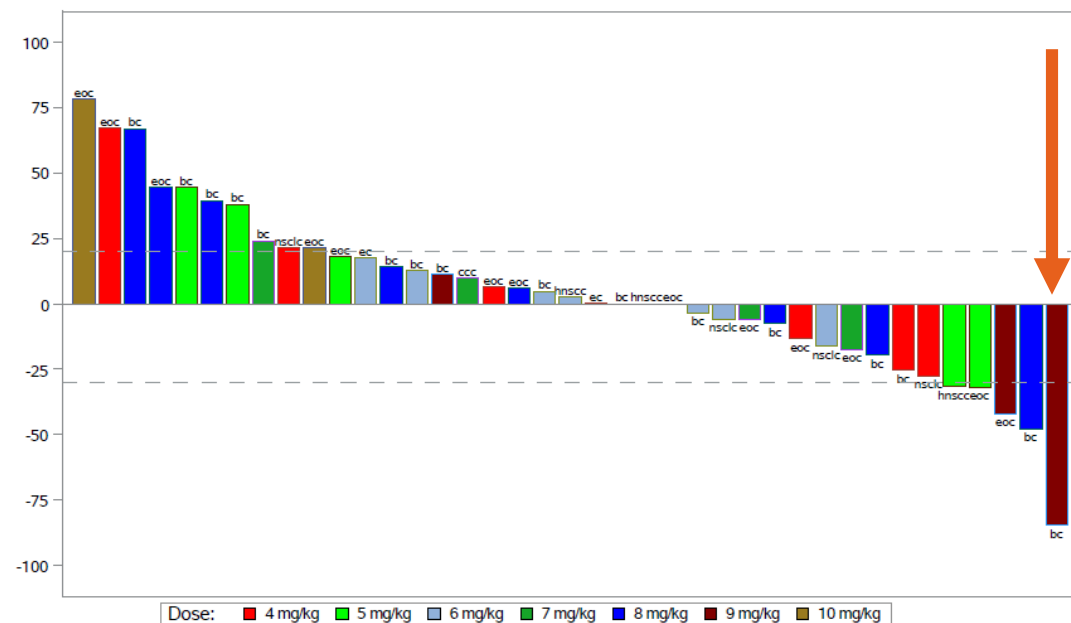
Data cutoff as of February 6, 2019

Evidence of Anti-Cancer Activity in Variety of Cancer Types at Doses at or above 4 mg/kg

Parts A and A2 Patients at 4 mg/kg Doses and Up
Best Percent Change from Baseline in Sum of Target Lesion Measurements

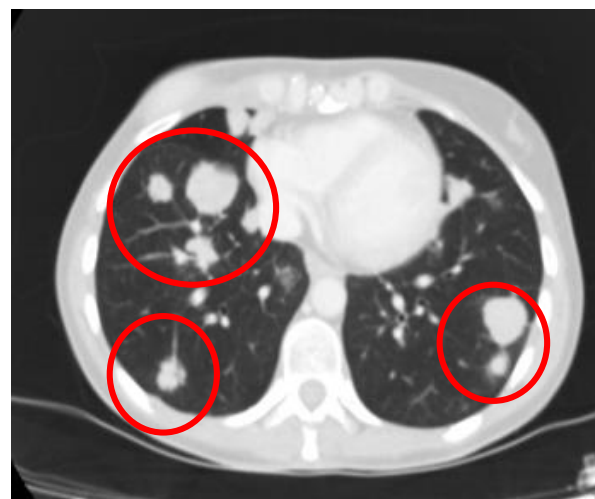


Case Study: Heavily Pre-Treated TNBC Patient Treated with 9 mg/kg CX-2009



Data cutoff as of February 6, 2019

September 4, 2018
BASELINE



October 8, 2018
2 Doses

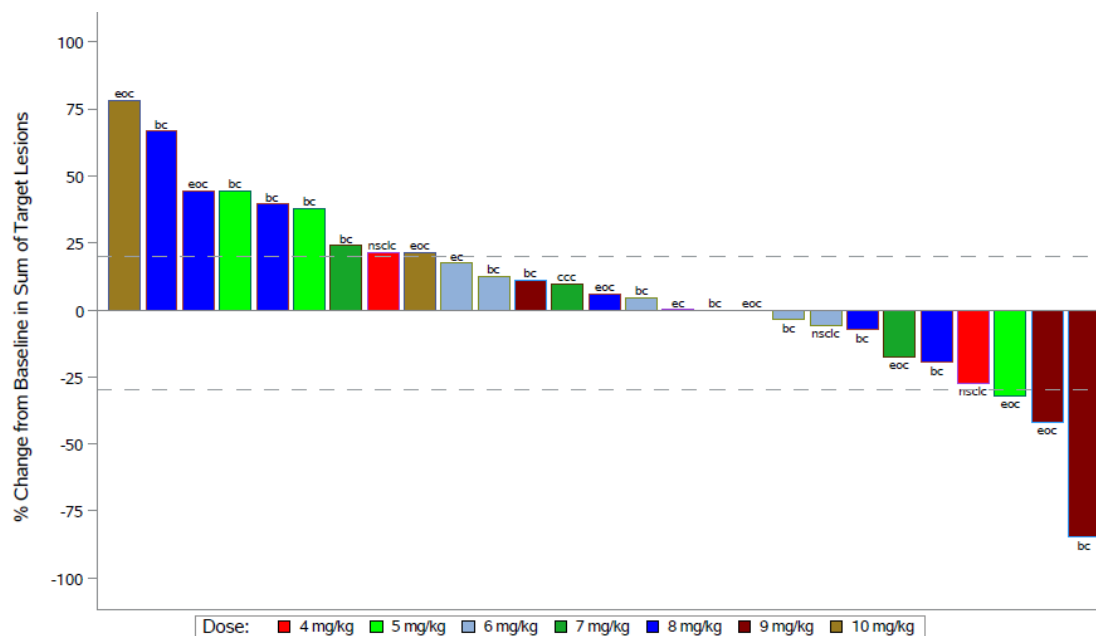


*9 prior regimens including chemotherapy, XRT, hormones

Anti-Cancer Activity Seen in Patients with Prior Experience on PD Inhibitors

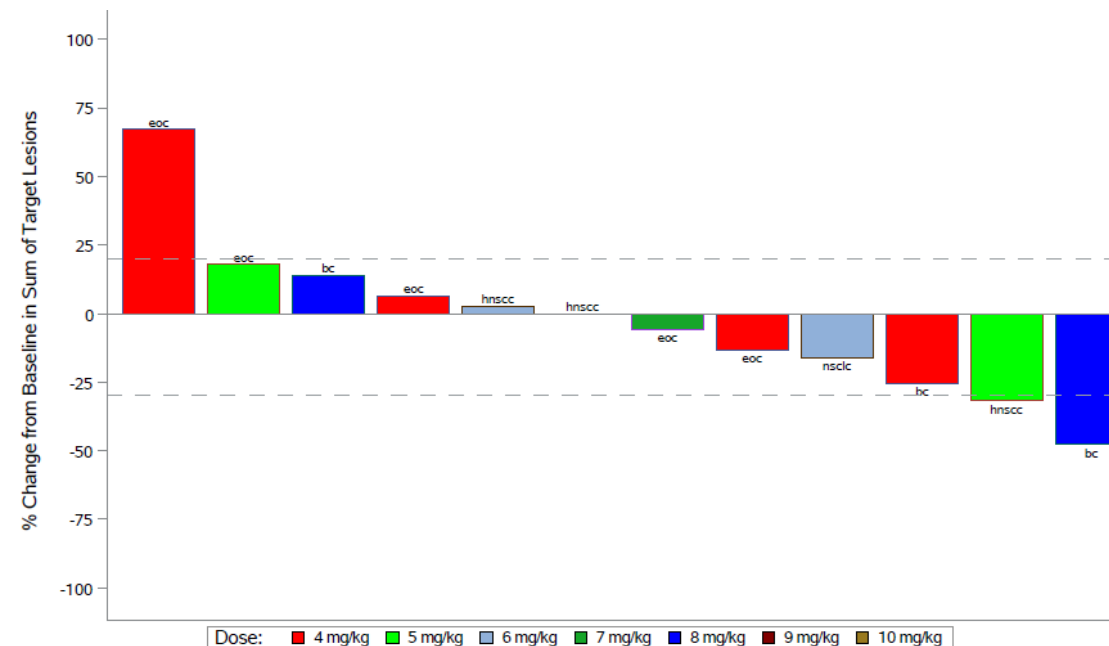
No Prior PD-pathway Inhibitors

Parts A and A2 Patients at 4 mg/kg Doses and Up that are PD Pathway Inhibitor Naive
Best Percent Change from Baseline in Sum of Target Lesion Measurements



Prior PD-pathway Inhibitors

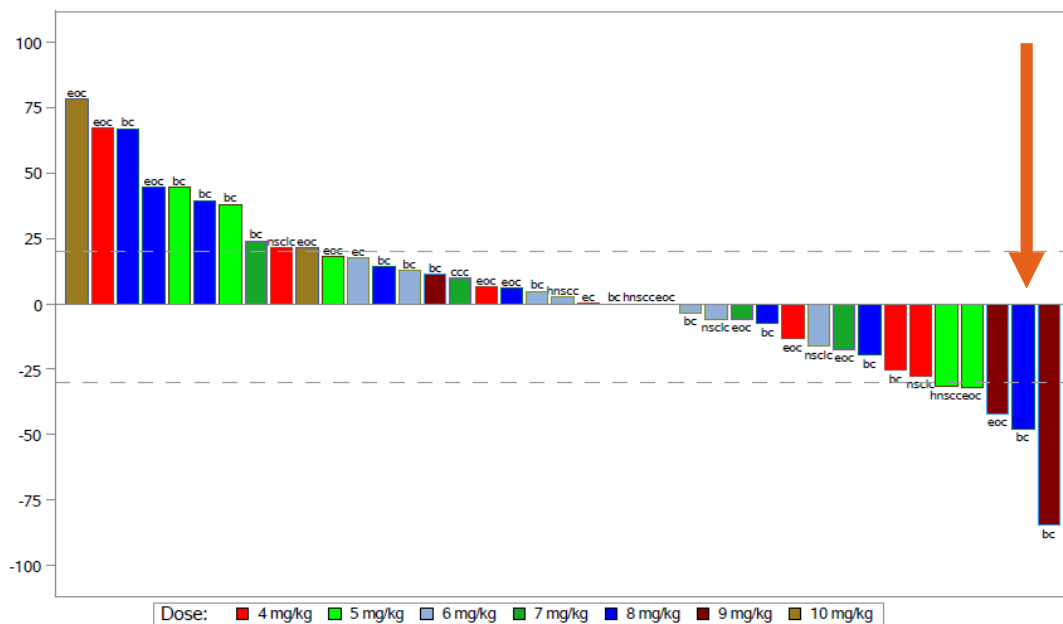
Parts A and A2 Patients at 4 mg/kg Doses and Up with Prior PD Pathway Inhibitors
Best Percent Change from Baseline in Sum of Target Lesion Measurements



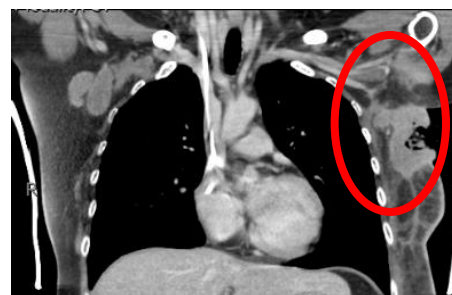
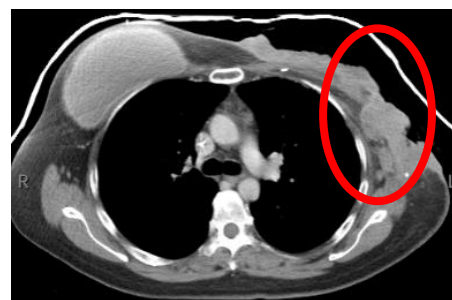
breast carcinoma (BC) cholangiocarcinoma (CCC); castration-resistant prostate cancer (CRPC); endometrial carcinoma (EC); head and neck squamous cell carcinoma (HNSCC); non-small cell lung cancer (NSCLC); epithelial ovarian carcinoma (EOC)

Data cutoff as of February 6, 2019

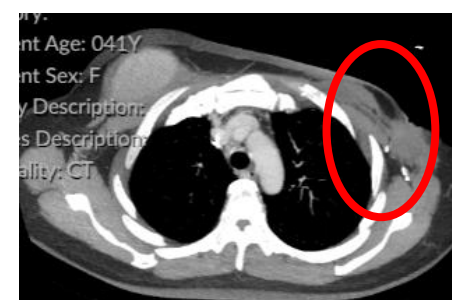
Case Study: Pembrolizumab-refractory TNBC Patient at 8 mg/kg



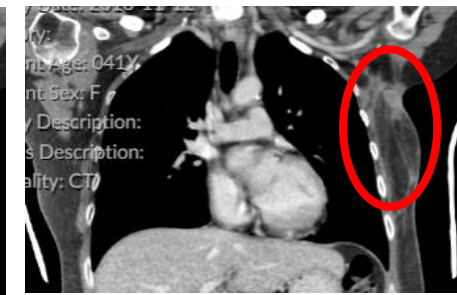
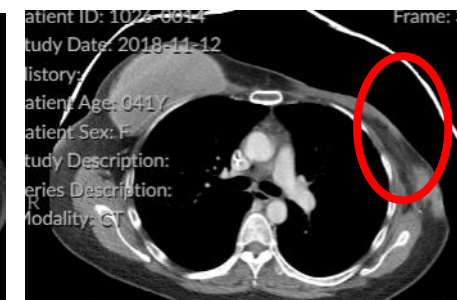
July 16, 2018
BASELINE



September 11, 2018
3 DOSES



November 12, 2018
6 DOSES



New lesion observed. Progression noted.

Dose Escalation: Safety Overview

		Total (N=76)
NUMBER (%) OF SUBJECTS EXPERIENCING		
TEAE Grade 3+		47 (61.8)
Related to CX-2009 (TRAE)		23 (30.3)
TEAE Leading to CX-2009 Discontinuation		11 (14.5)
Related to CX-2009 (TRAE)		10 (13.2)
TEAE Leading to Death		2 (2.6)
Related to CX-2009 (TRAE)		0
IRRs		16 (21.1)
Grade 3+		1 (1.3)

Grade 3/4 Treatment Related Adverse Events Observed in ≥ 2 Patients

	< 4mg/kg (N=10)	4-5 mg/kg (N=19)	6-7 mg/kg (N=18)	8-9 mg/kg (N=21)	10 mg/kg (N=8)
TOTAL SUBJECTS WITH GRADE 3-4 TRAEs	0	4 (21.1)	4 (22.2)	11 (52.4)	4 (50)
EYE DISORDERS	0	1 (5.3)	0	5 (23.8)	1 (12.5)
METABOLISM AND NUTRITION DISORDERS	0	0	2 (11.1)	2 (9.5)	0
LIVER FUNCTION TESTS	0	0	0	1 (4.8)	3 (37.5)
GASTROINTESTINAL DISORDERS	0	0	1 (5.6)	2 (9.5)	1 (12.5)
NERVOUS SYSTEM DISORDERS	0	1 (5.3)	2 (11.1)	0	0

DOSE ESCALATION COMPLETED

- 0.25 to 10 mg/kg every 3 weeks
- MTD not reached
- Anti-tumor activity observed at doses \geq 4 mg/kg

DOSE REFINEMENT UNDERWAY

- Ocular prophylaxis introduced
- mTPI-guided* approach

INITIAL EXPANSION COHORTS

- Pending dose selection
- Expected to start in 2019



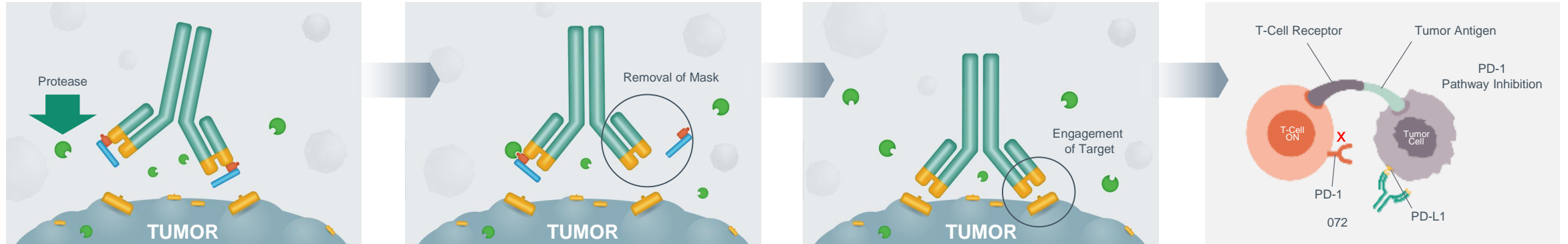
CX-072 and CX-2009 Translational Programs

Michael Kavanaugh, M.D.

Chief Scientific Officer and Head of Research
and Non-Clinical Development



Translational Program Designed to Provide Evidence of Probody MOA and Biological Activity in Patients



POTENTIAL PREDICTIVE MARKERS

- PD-L1 levels in tumor (IHC)
- Relevant protease activity in patient biopsies
- Tumor mutational burden

PROBODY-TX ACTIVATION IN TUMOR

- Probody-Tx activation/unmasking: analyzed by capillary electrophoresis immunoassay

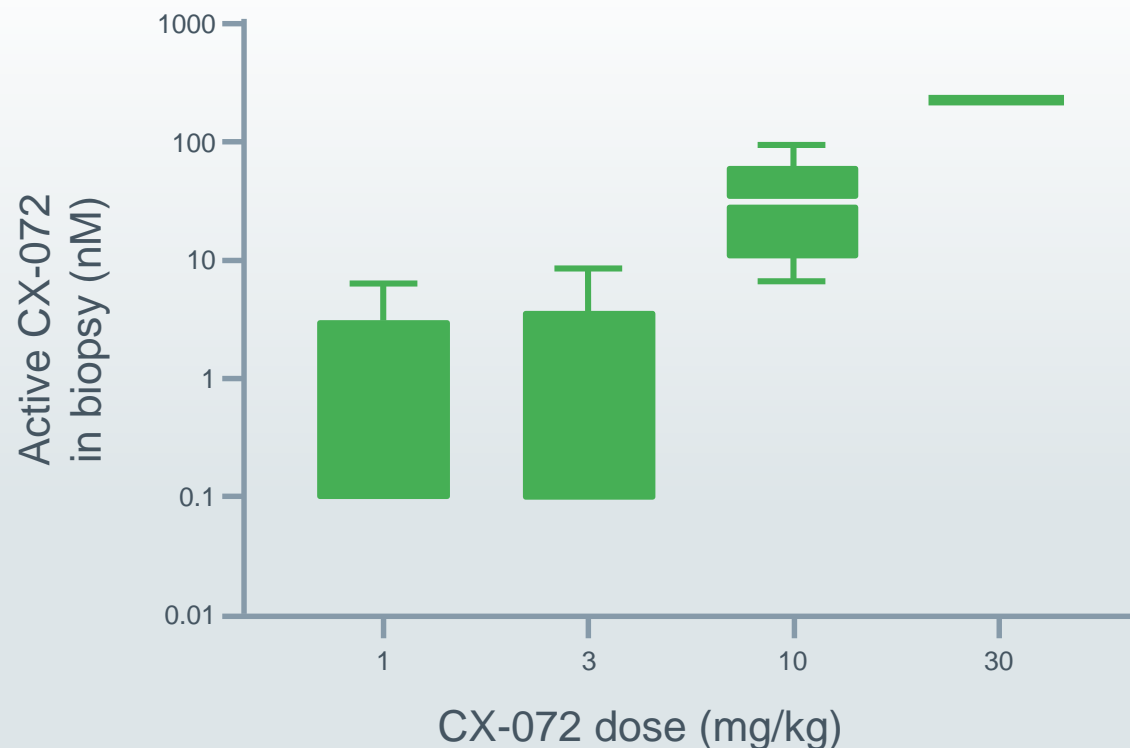
PROBODY-TX LOCALIZATION IN TUMOR

- ^{89}Zr -CX-072 Immuno-PET imaging

PD-L1/PD-1 PATHWAY INHIBITION

- Markers of immune system activation: assessed by IHC and mRNA expression

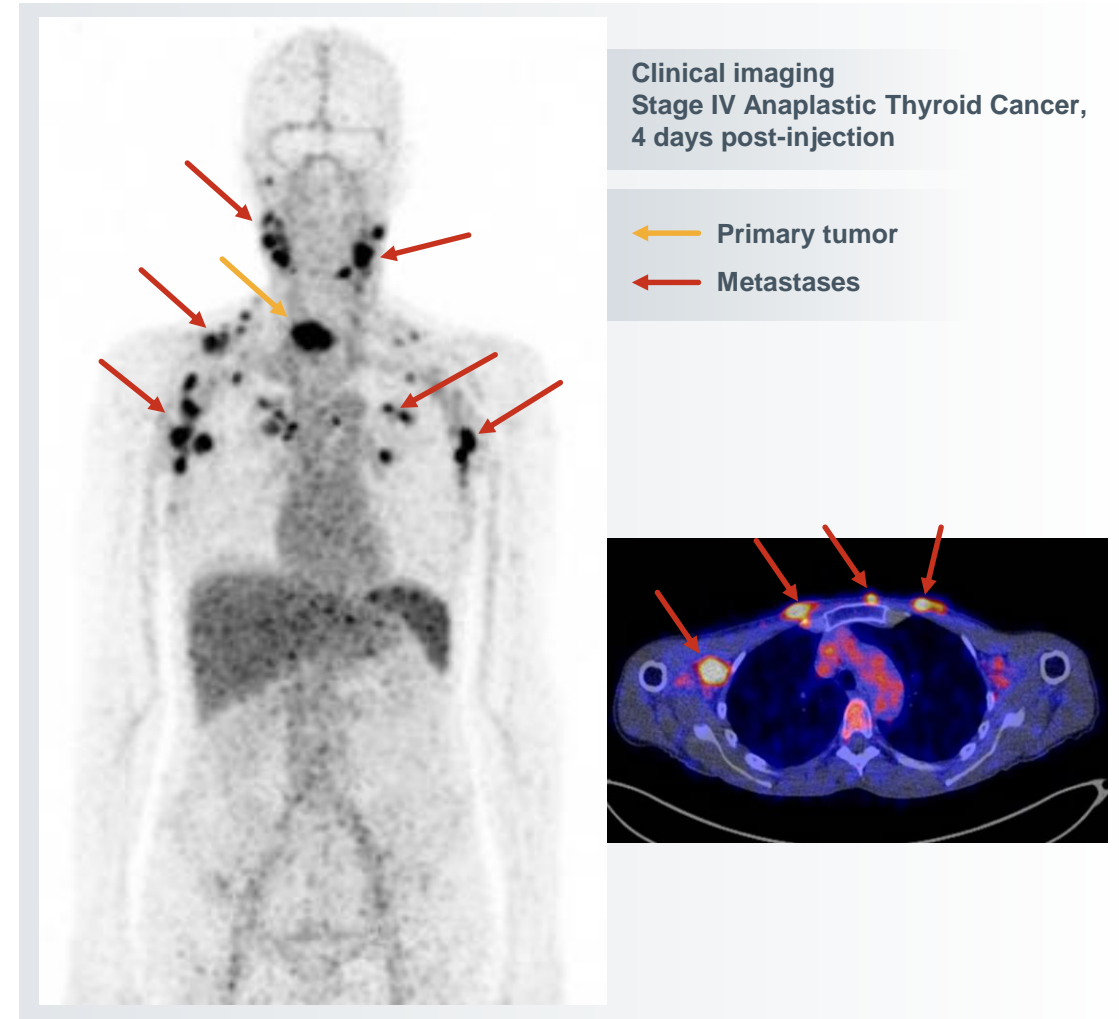
Activated/Unmasked CX-072 is Detected in Human Tumors at Doses ≥ 1 mg/kg



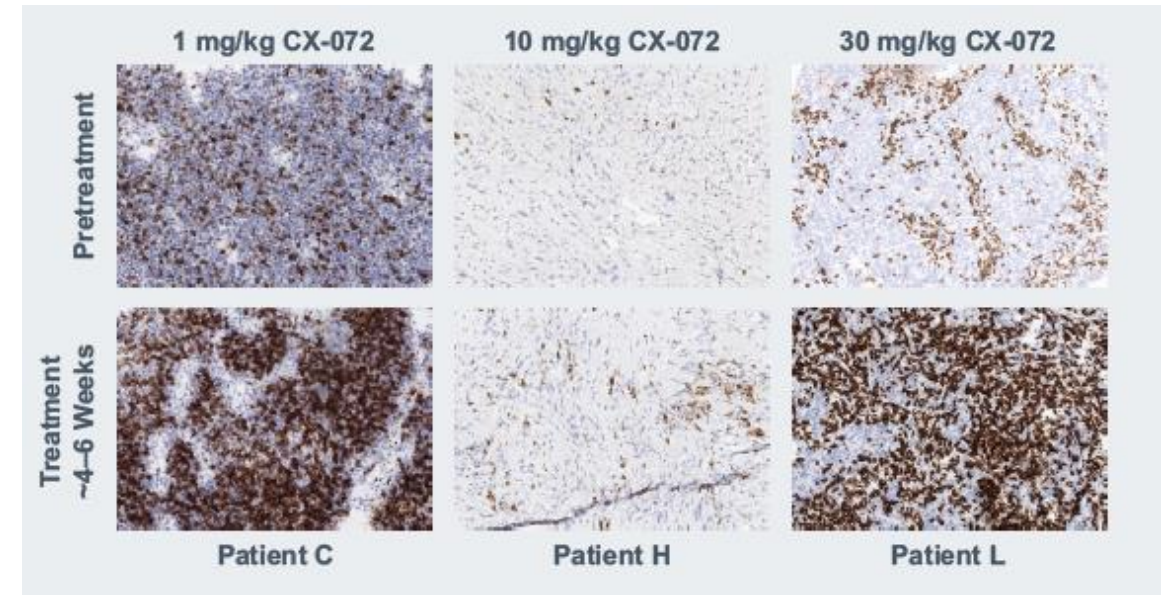
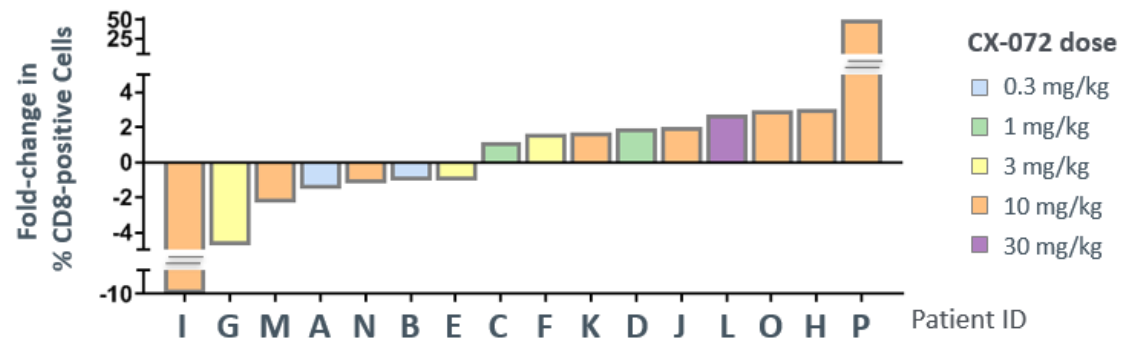
- Intratumoral activated CX-072 increased with dose
- Estimated Intratumoral Target Occupancy of PD-L1 by Activated/Unmasked CX-072 Exceeds 98% at Doses ≥ 3 mg/kg
- 10 mg/kg is being studied in Part D expansion cohorts

Immuno-PET Imaging Demonstrates CX-072 Uptake in Human Tumors

- Collaboration with Professor E. G. E. de Vries, University Medical Center Groningen, The Netherlands
- Uptake of ^{89}Zr -labeled CX-072 in tumors demonstrated in multiple patients
 - Patient with unconfirmed PR shown
- Suggests unmasking and engagement of CX-072 with its tumor target, PD-L1
- Study is ongoing



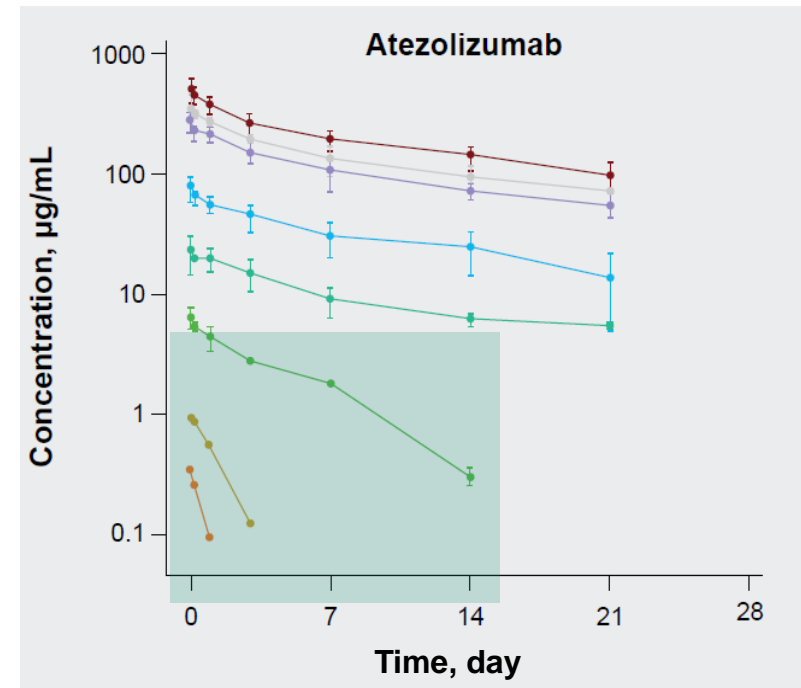
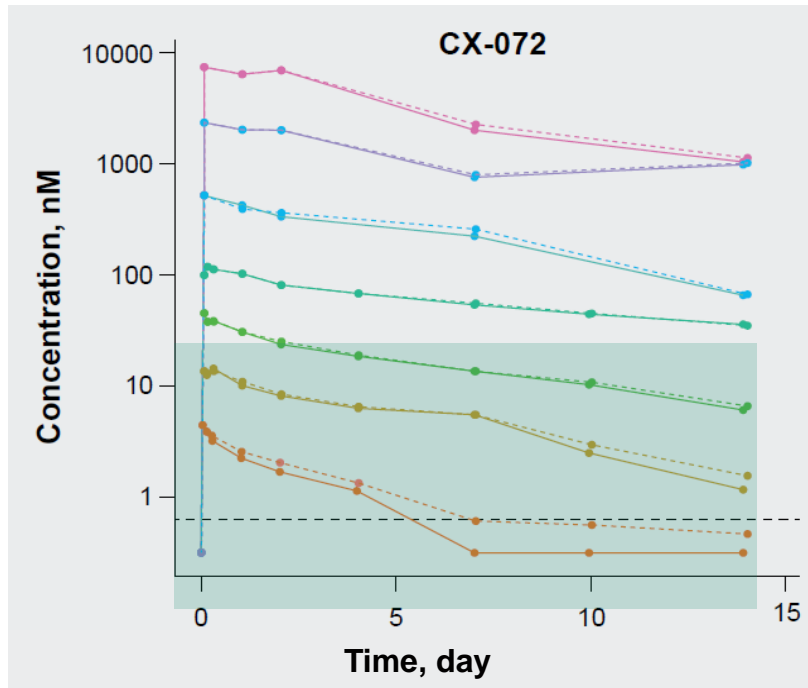
CX-072 Treatment Increases Levels of CD8+ T Cells in Patient Tumors



Data as of January 28, 2019

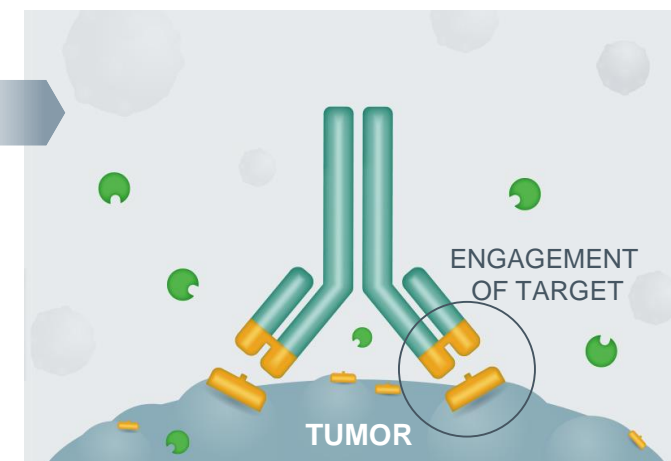
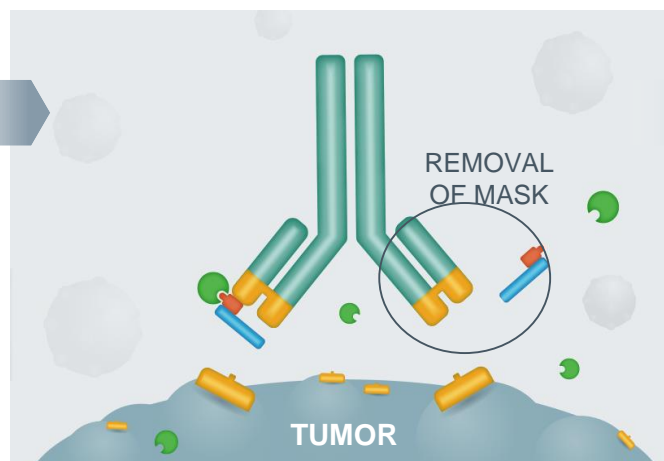
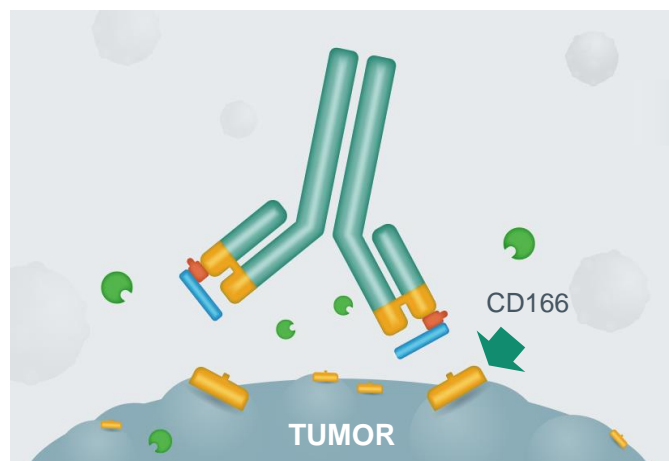
Consistent with inhibition of the PD-1: PD-L1 pathway

Dose Escalation: CX-072 Circulates Predominantly As Intact Prodrug



—●— 0.03 mg/kg
 —●— 0.1 mg/kg
 —●— 0.3 mg/kg
 —●— 1 mg/kg
 —●— 3 mg/kg
 —●— 10 mg/kg
 —●— 15 mg/kg
 —●— 20 mg/kg
 —●— 30 mg/kg

- Single-dose CX-072 PK data and PK modelling suggest that CX-072 circulates predominantly as the intact prodrug species
- Clearance is minimally influenced by target mediated drug disposition



POTENTIAL PREDICTIVE MARKERS

- CD166 Membrane Expression
– archival, screening, on-treatment biopsies

PROBODY-TX ACTIVATION IN TUMOR

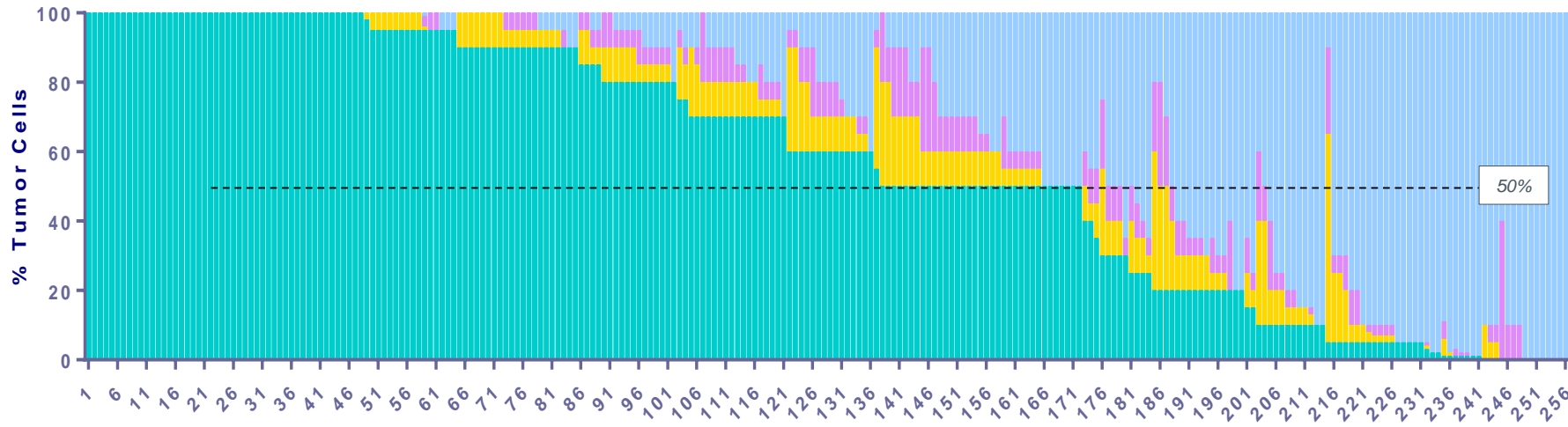
- Cleavage of CX-2009 mask
– capillary electrophoresis in tumor biopsies

PROBODY-TX LOCALIZATION IN TUMOR

- CX-2009 imaging

Majority of Patients have CD166+++ Tumors

CD166 Staining Intensity



% Patients with highest CD166 expression (IHC 3+)

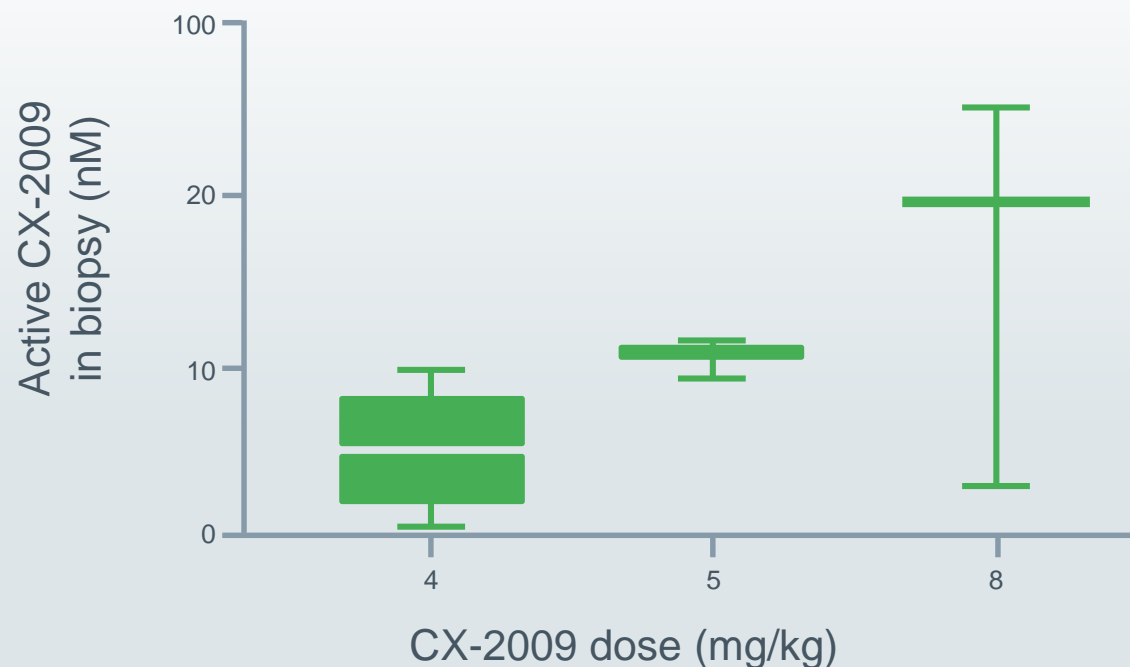
Breast	79% (n=95)
NSCLC	64% (n=22)
Endometrial	67% (n=3)
Ovarian	59% (n=107)
HNSCC	62% (n=21)

as of January 28th 2019

Stringent definition of high expression:
3+ staining of membrane in $\geq 50\%$ tumor cells

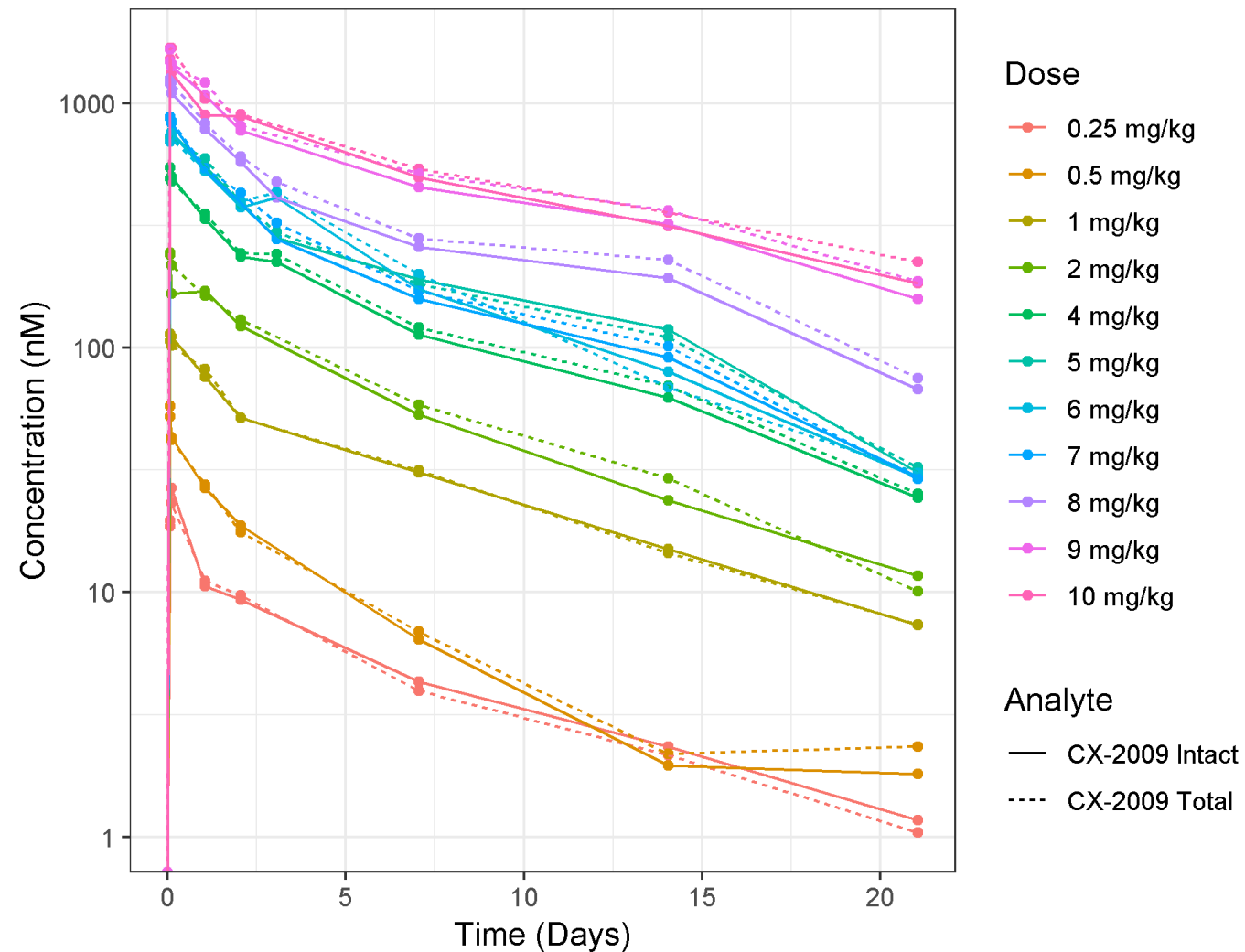
- CD166 Membrane 0
- CD166 Membrane 1 +
- CD166 Membrane 2 +
- CD166 Membrane 3 +

Verified data as of Dec. 26th 2018



- Initial 11 evaluable samples analyzed from 4-8 mg/kg dose levels
- Intratumoral activated CX-2009 increased with dose

- Single-dose CX-2009 PK data suggest that CX-2009 circulates predominantly as the intact prodrug species



PROTEOLYTIC ACTIVATION OF CX-072 and CX-2009

- Protease activity can be detected in majority of patient tumors
- Both CX-072 and CX-2009 are unmasked/activated in human tumors
- CX-072 localizes to human tumors by Immuno-PET imaging
- Both CX-072 and CX-2009 are predominantly intact in circulation

BIOLOGICAL ACTIVITY OF CX-072

- Intratumor concentrations of unmasked/activated CX-072 are estimated to be sufficient for high-level target occupancy
- Similar concentrations are associated with efficacy in a preclinical model
- CX-072 treatment is associated with expansion of intratumoral CD8+ T cells

CD166 EXPRESSION

- The majority of patients highly express CD166 even without preselection

CONCLUSION

- CX-072 and CX-2009 appear to function as designed in cancer patients
- Findings are consistent with observed safety and activity of CX-072



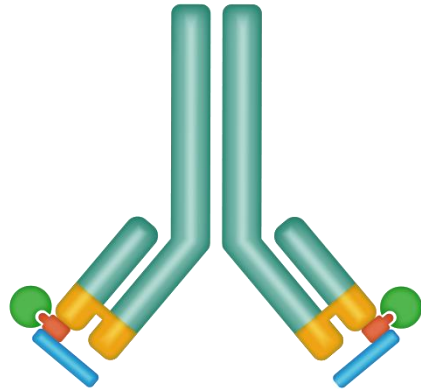
Next Wave of Innovation

Michael Kavanaugh, M.D.

Chief Scientific Officer and Head of Research
and Non-Clinical Development

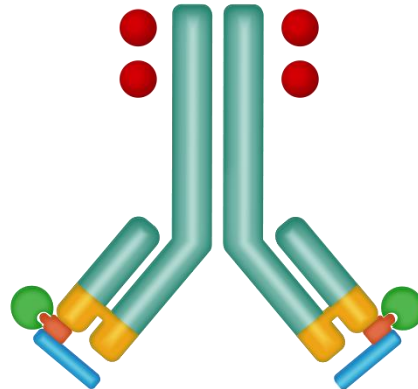
Probody Platform is Potentially Applicable Across Multiple Modalities

IMMUNE MODULATORS/
CHECKPOINT INHIBITORS



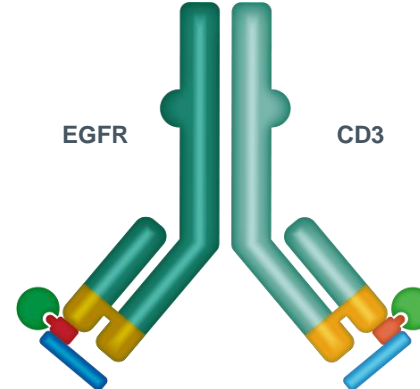
PD-L1 (CX-072)
CTLA-4 (BMS-986249)

ANTIBODY
DRUG CONJUGATES



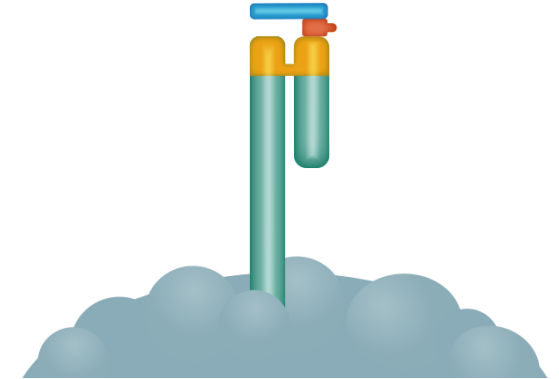
CD166 (CX-2009)
CD71 (CX-2029)

T-CELL
BISPECIFICS



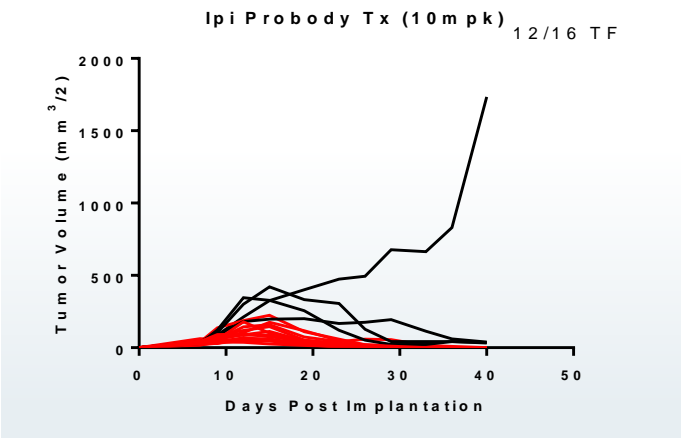
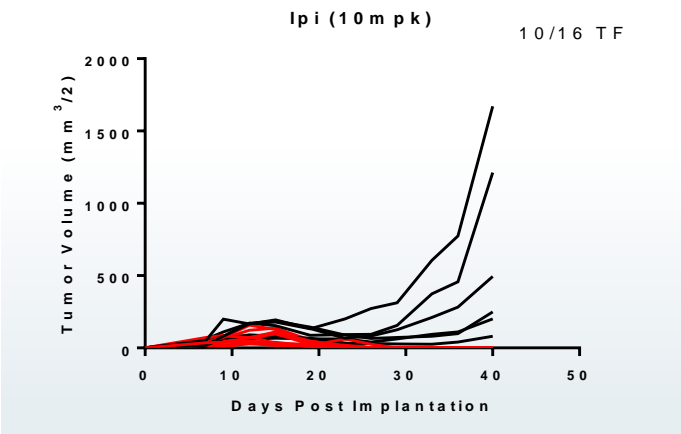
EGFR-CD3

CARS



DISCOVERY STAGE


The Ipilimumab Probody Therapeutic BMS-986249 Has Similar Efficacy and Improved Safety in Preclinical Models



Toxicity in Cynomolgus Monkeys

	ipilimumab	BMS-986249
HNSTD*	10 mg/kg	>50 mg/kg

Clinical Study Ongoing

 U.S. National Library of Medicine

[ClinicalTrials.gov](#)


[Find Studies](#) [About Studies](#) [Submit Studies](#) [Resources](#) [About Site](#)

[Home](#) > [Search Results](#) > Study Record Detail Save this study

Trial record 1 of 1 for: BMS-986249

[Previous Study](#) | [Return to List](#) | [Next Study](#)

An Investigational Immunotherapy Study of BMS-986249 Alone and in Combination With Nivolumab in Solid Cancers That Are Advanced or Have Spread

 **Bristol-Myers Squibb**

TF = Tumor Free
HNSTD = Highest Non-Severely Toxic Dose

The Probody Platform Potentially Enables an Ideal Class of ADC Targets

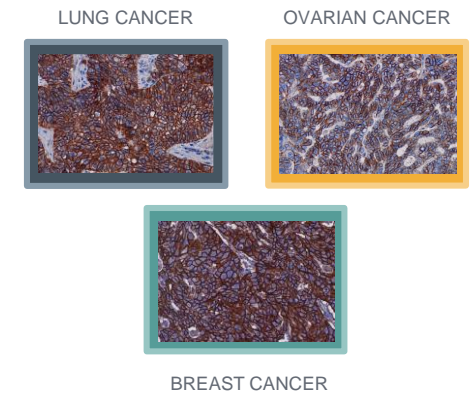
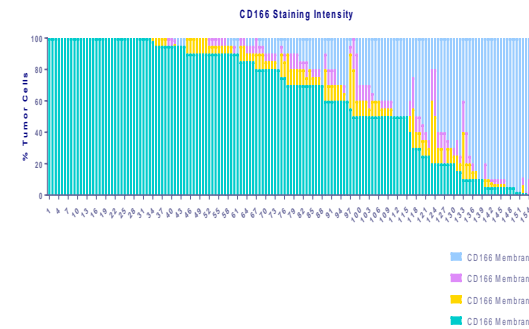
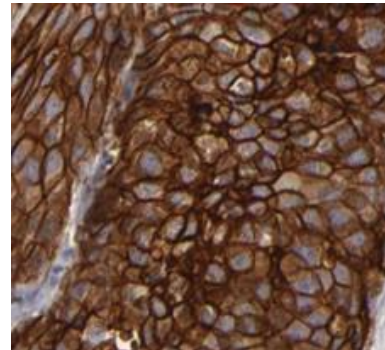
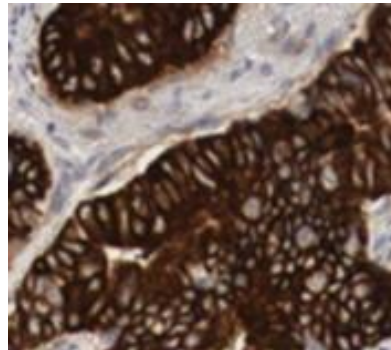
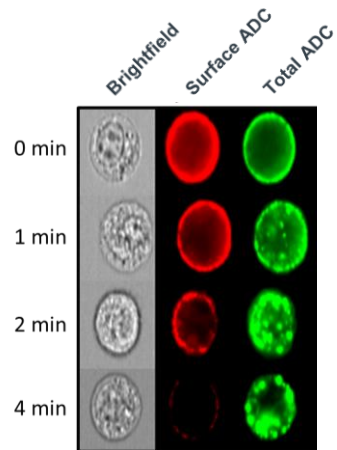
**Best
Internalizing
Targets**

**Highest Possible
Membrane
Expression**

**Uniform Tumor
Expression**

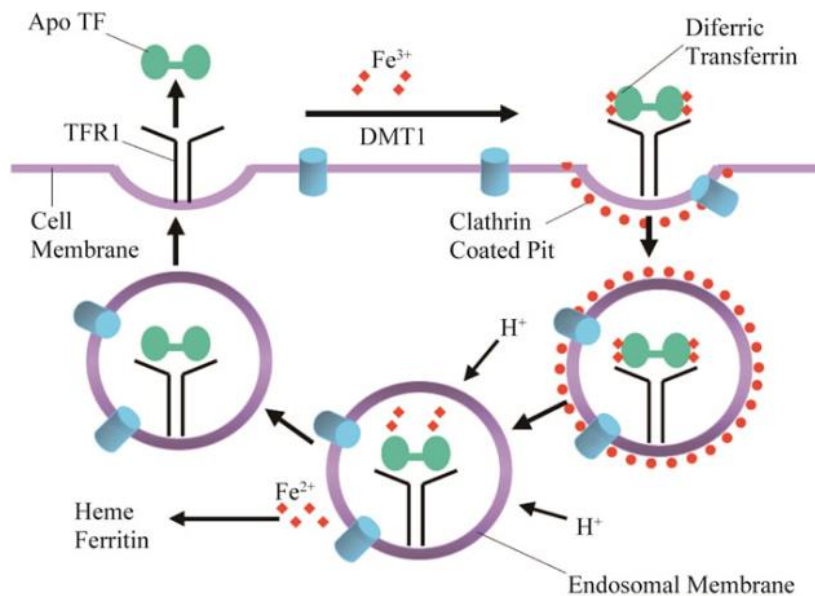
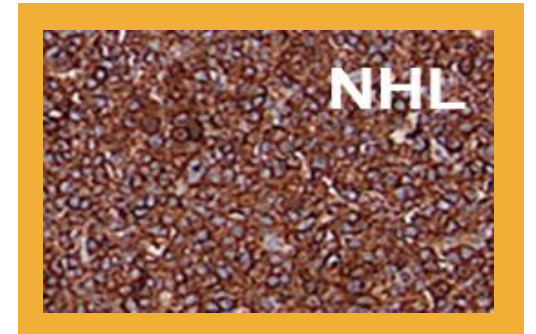
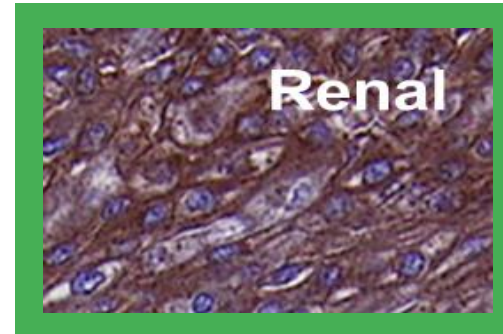
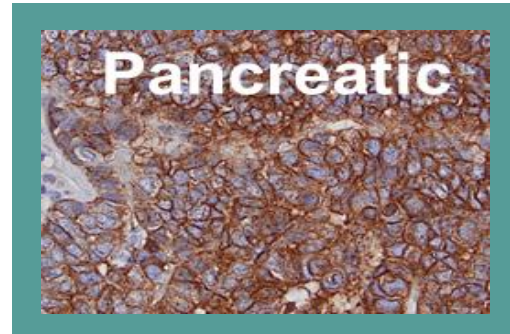
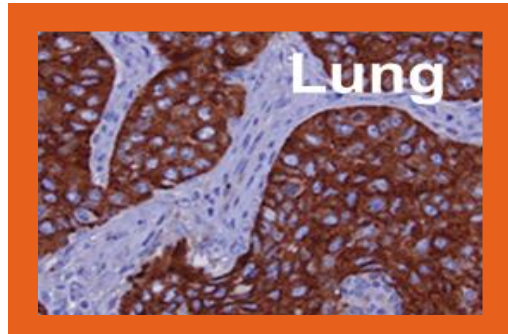
**Majority Patients
Express at High Level**

**Highly Expressed in
Multiple Common
Cancers**



These targets are typically expressed highly in normal tissues = not suitable for traditional ADC

CD71 is a High Potential Target for a Probody Drug Conjugate

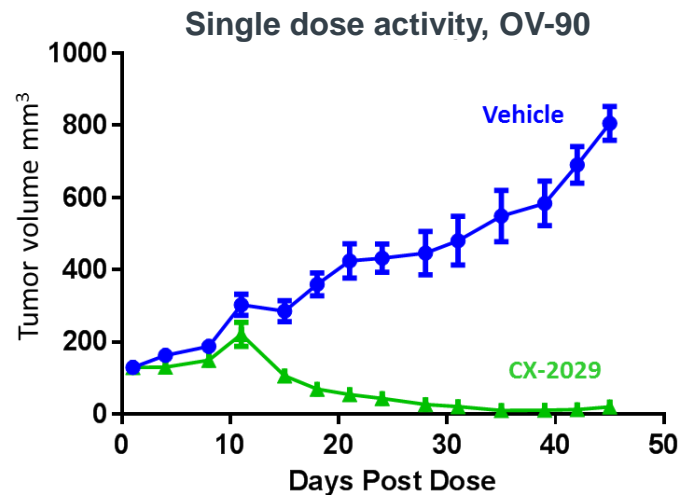


- Ubiquitously expressed on dividing, normal and malignant cells
- Mediates iron uptake required for cell division
- Professional internalizing protein: The gold standard in ADC experiments
- Expression in normal dividing cells prohibits development of a traditional ADC



Probody Platform has the Potential to Enable CD71 as a Drug Conjugate Target

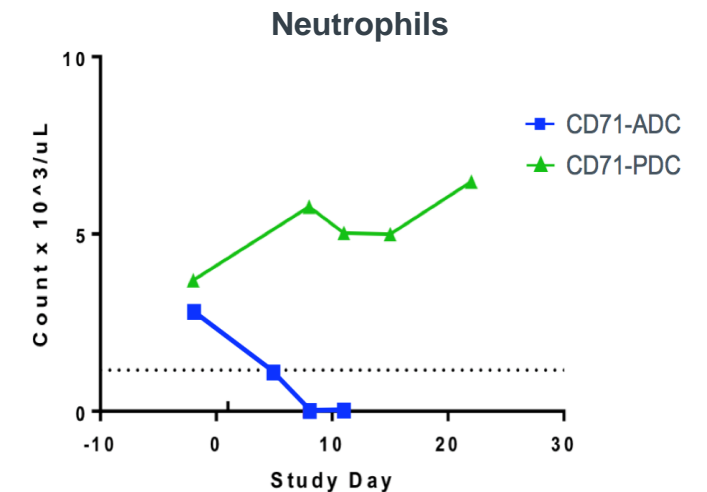
PDC REGRESSES TUMORS AFTER A SINGLE DOSE IN MICE



PDC HAS EFFICACY ACROSS ALMOST ALL PRECLINICAL MODELS

Models tested	42
Regression or stasis	30 (71%)
Growth inhibition	10 (24%)
No response	2 (5%)

IN NON-HUMAN PRIMATES, PDC CREATES THERAPEUTIC WINDOW

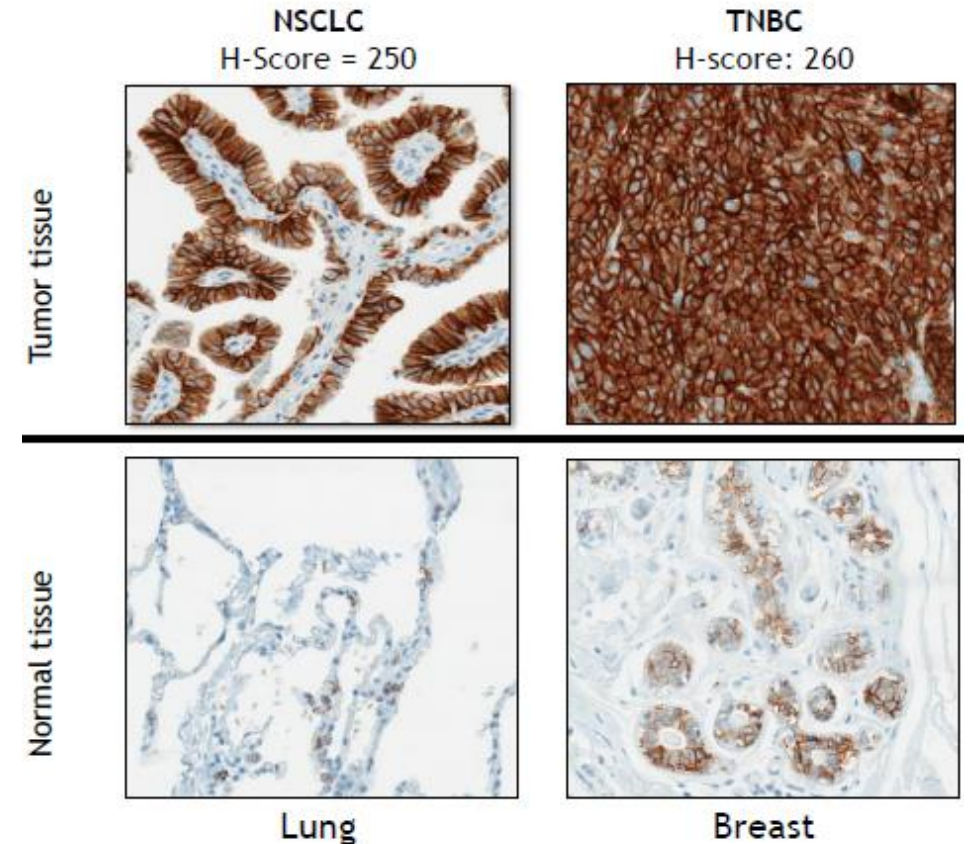


Partnered with AbbVie: Co-development rights and profit split; \$25M milestone to CytomX received July 2018; Enrolling Phase 1/2 Trial



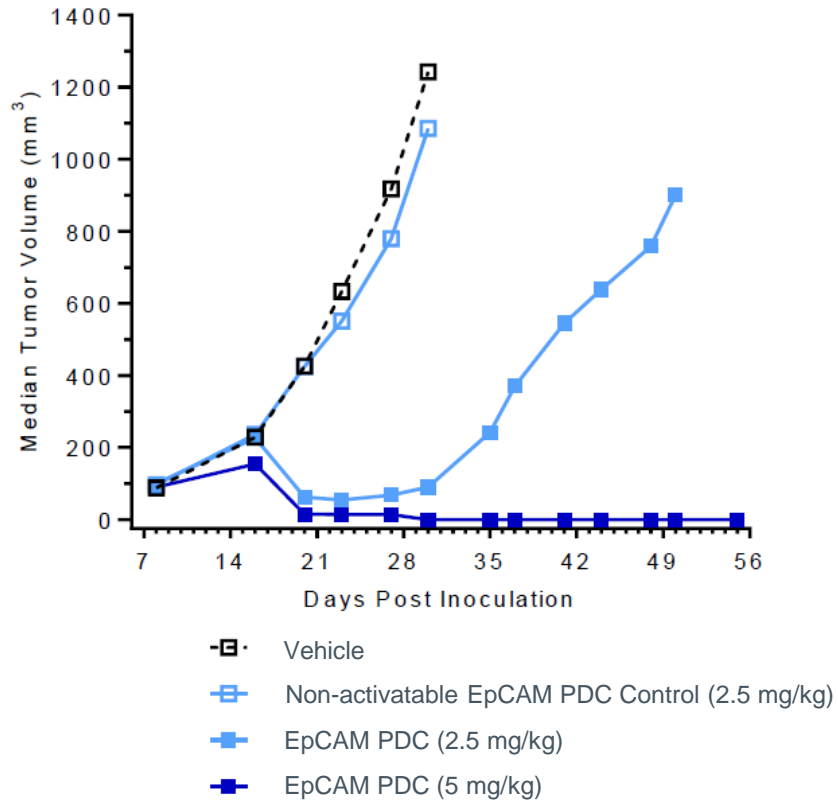
EpCAM is a High Potential Target for a Probody Drug Conjugate

- Discovered in 1970
- Over-expressed in multiple cancers, normal tissues
- Prior attempts to target limited by
 - pancreatitis with high affinity antibodies
 - poor activity with low affinity antibodies
- Only successful EpCAM-targeted therapies were delivered locally, with limited utility
- The Probody technology has the potential to enable potent, tolerated, systemic EpCAM-targeted PDC

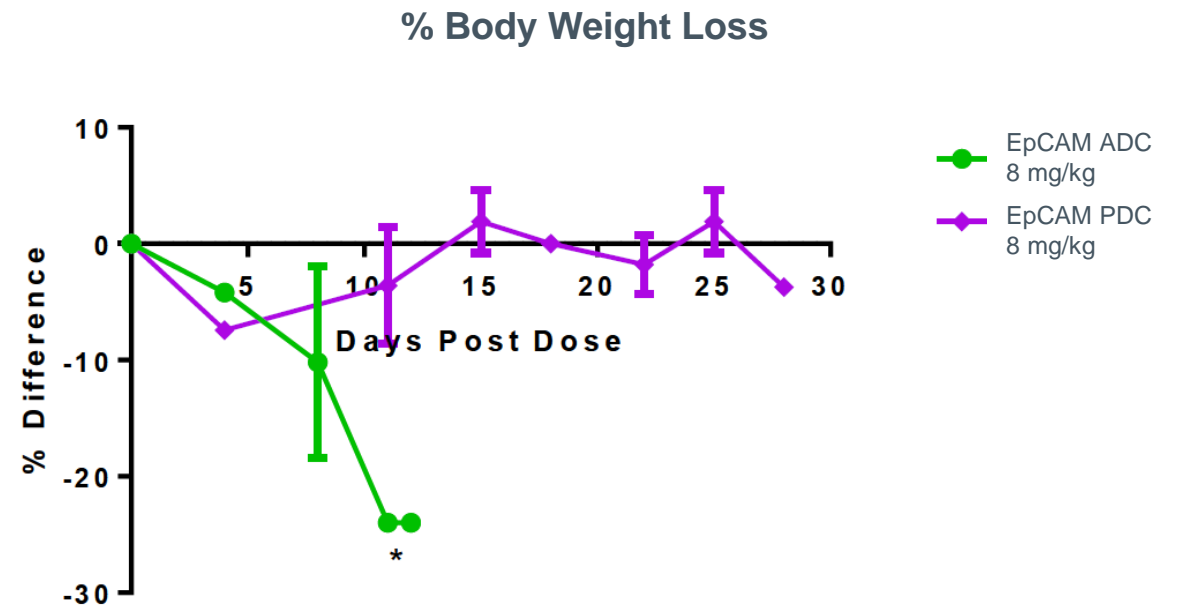


Probody Technology Creates a Therapeutic Window for EpCAM ADCs

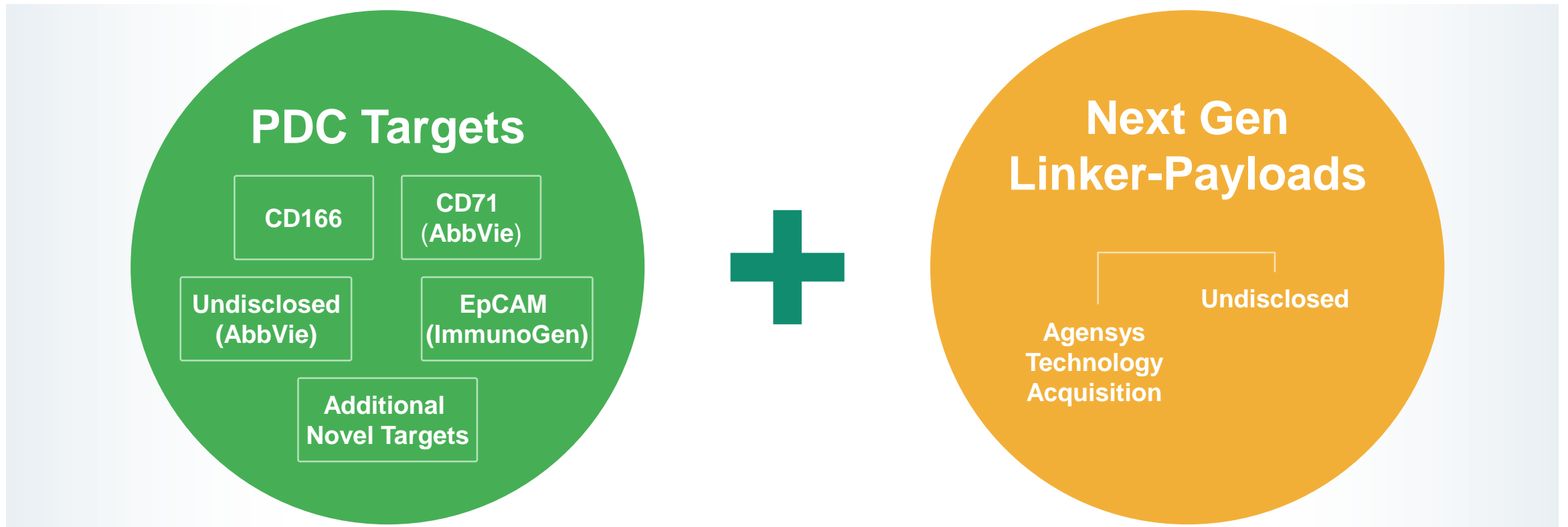
Tumor Regression in H2110 NSCLC Model



Improved Tolerability in Non-human Primates



CytomX is Building a Pipeline of PDCs to First-in-Class Targets and With Next Generation Linker-Payload Technologies

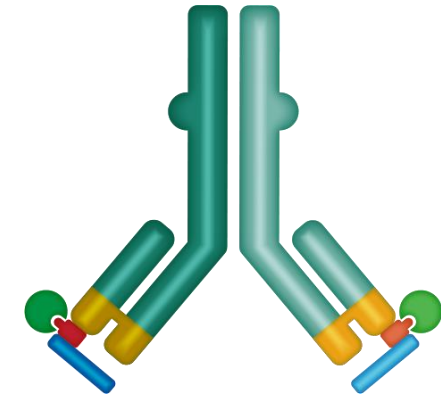


Probody Technology + Next Generation Linker-Payloads
Potentially Address Both On-target And Off-target Toxicities

Probody T-cell Engaging Bispecific Therapeutics (Pb-TCBs) are Designed to Enable Use in Solid Tumors

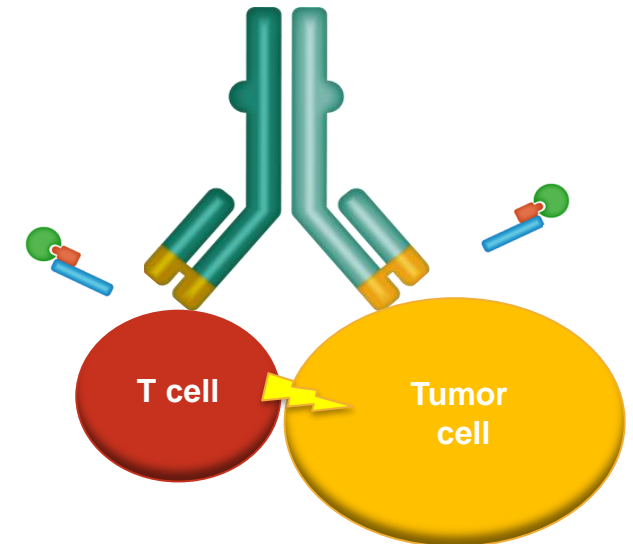
T-cell Engaging Bispecific Antibodies (Ab-TCBs)

- Bring cytotoxic T cells, cancer cells together
- Highly potent but toxic modality
- Challenging to use for solid tumors: unforgiving for target expression on normal tissue
- Poor exposure



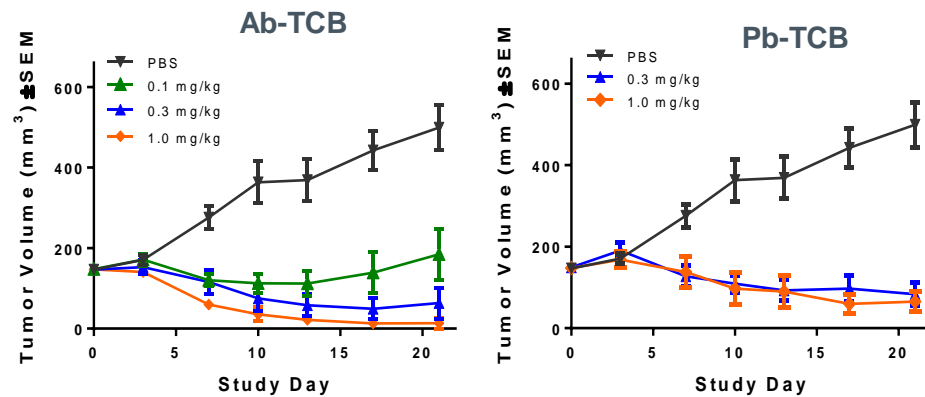
T-cell Engaging Probody Bispecific Therapeutics (Pb-TCBs) Potential

- Potent anti-tumor activity
- Less systemic toxicities by avoiding T cell engagement outside of tumor
- Better exposure
- Expands utility, especially for solid tumors

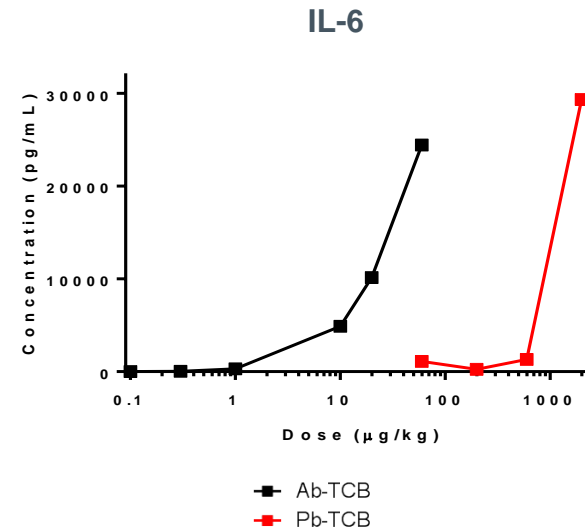


EGFR-CD3 Probody TCB has Exhibited Potent Preclinical Efficacy, Improved Safety and PK

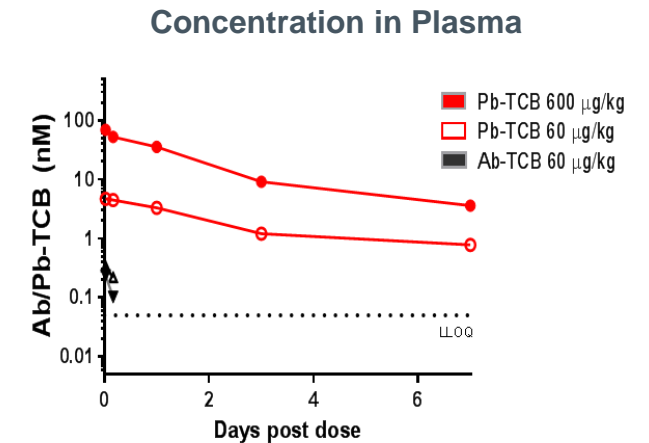
EFFICACY



SAFETY



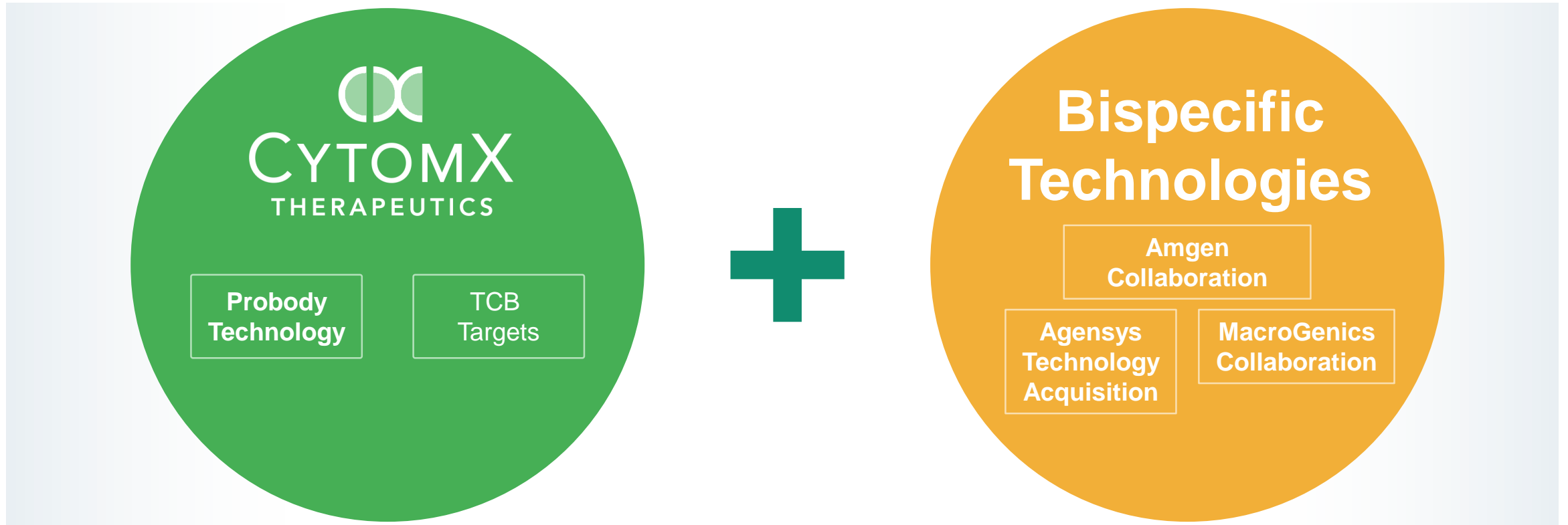
PK



Partnered with Amgen: Co-development rights and profit split;
\$40M upfront payment to CytomX received October 2017

AMGEN

CytomX is Combining Probody Technology with Industry-Leading Bispecific Technologies to Build a Pb-TCB Pipeline



Probody Technology + Best-in-class Bispecific Technologies =
Opportunity to Potentially Address Solid Tumors with Pb-TCBs

Ongoing and Future Research Avenues

NEXT-GENERATION PROTEASE SUBSTRATES AND MASKING STRATEGIES

- Goal is to widen therapeutic window even farther
- Proprietary and novel screening methods
- Substrates with improved properties have already been identified and are being integrated into the pipeline

PREDICTIVE BIOMARKERS

- Goal is to identify which patients respond best to our drugs
- Using both de novo discovery and learnings from the clinic

NEW APPLICATIONS OF PROBODY TECHNOLOGY

- Non-antibody masking, new therapeutic areas

Question & Answer Session



Probody™ Therapeutics: Perspectives from a PROCLAIM Clinical Investigator

Alex Spira, M.D. Ph.D.

Director, Clinical Research Program and Phase 1 Program, Virginia Cancer Specialists

Chair, US Oncology Thoracic Oncology and Research Executive Committee

Assistant Professor of Medicine, Johns Hopkins University

Disclosures

FUNDING, TRAVEL AND HONORARIA
PROVIDED BY CYTOMX THERAPEUTICS

My Practice

- Large Community Practice with Intense Research Program
 - Phase I, First in Human, Complex Research Program

- 36 Physicians, Northern Virginia

- Current Regimen Breakdown:

- Immuno-oncology 20-25%
- ADC's and Monoclonal Antibodies 40-50%
 - >70% of revenue
 - Used in all tumor types and ever growing



The Unmet Need in Immuno-Oncology

Despite great advances, obstacles still exist

- Toxicities are real and meaningful
 - Diarrhea, Pneumonitis
 - 15-20% in studies, higher in real world
 - Worse in combinations
- Significant limitation and fear of PDL/CTLA-4 combos
 - Dose reductions for toxicity may reduce efficacy
- Physician Hesitation
 - I/O Drugs in Patients with autoimmune diseases, contraindications
- Long-Term Use
 - Balancing efficacy and cumulative toxicity

The Unmet Need with Targeted Therapies

Limited Number of Great Targets

- Typically effective in small patient populations
- Increasing understanding and use
- Most patients do not benefit despite the hoopla
- Targets like CD166 could bring the advantages of good targeted agents to more patients

Current Therapies Have Limitations

Current PD-L1 Agents

- Toxicities
- Efficacy

ADC Agents

- Small # of Targets
- Unsafe toxin
- Target on normal tissues
- Anticipated Innovations:
 - More targeted treatments
 - Personalized biomarker profiles
 - Drug combinations

My History with the Probody Platform



Questions I Asked Myself:

- Why is this approach needed in today's treatment climate?
- Why do we need CX-072—“*another* PDL therapy”?
- Reflected on the limitations of the current treatment landscape
- PROCLAIM Model provided elegant approach to work with the Probody platform, just not individual molecules

PROCLAIM-CX-072: Case Study

TNBC with Skin Lesions (UPR); Treatment Duration 20+ Weeks

**August 9, 2018
Baseline**



**September 5, 2018
After 1 doses**



**October 3, 2018
After 3 doses**



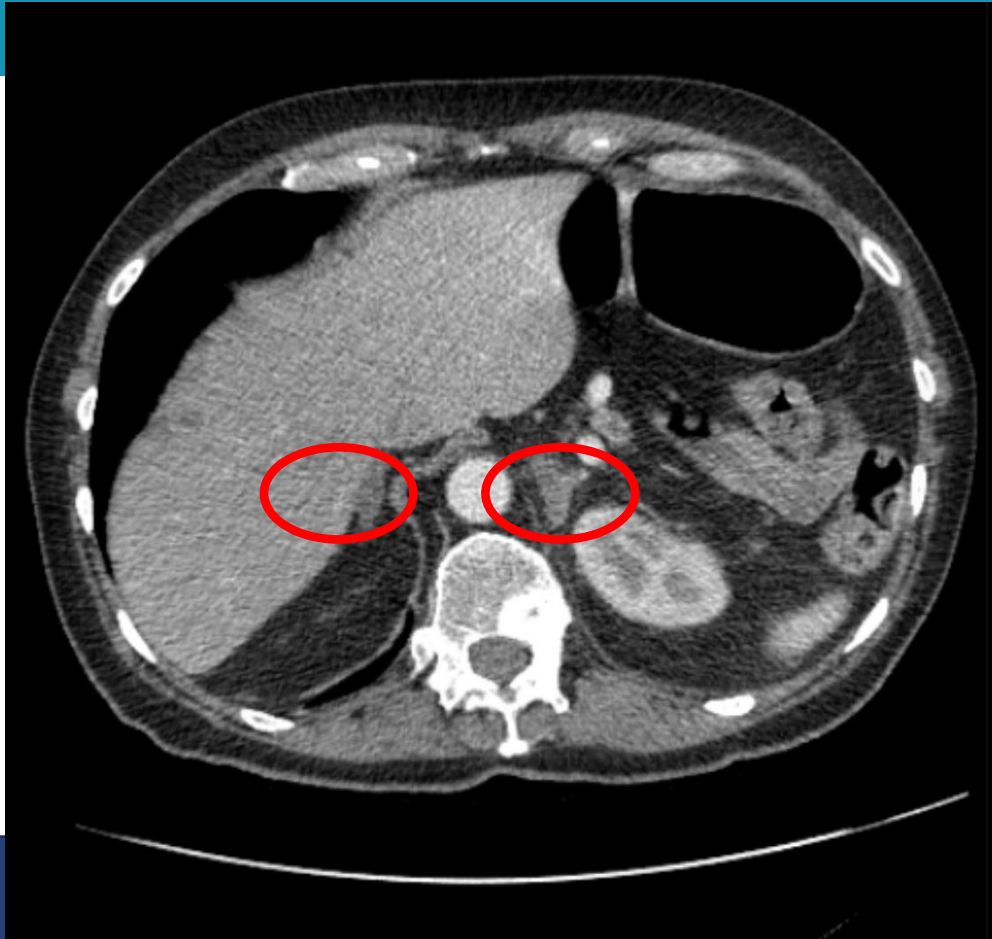
**October 3, 2018
After 3 doses**



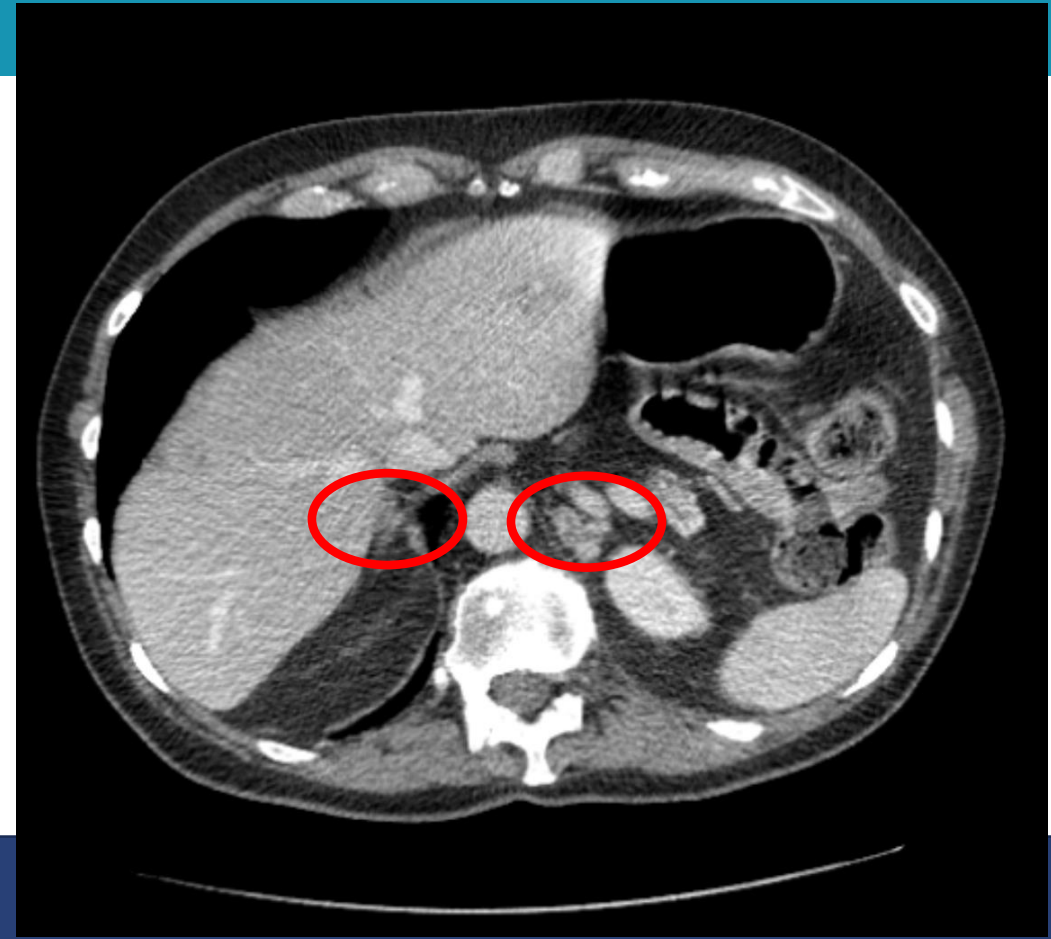
**Triple Negative Breast Cancer
with Skin Lesions**

Breast—4 cycles still ongoing TNBC, heavily pretreated
- Had no other options

PROCLAIM-CX-2009: Case Study



Non-Small Cell Lung Cancer



Lung-was on for about a year, stable disease..
Pretreated with all other options as well including
nivo - Had no other options

In Conclusion

- Lack of efficacy or emergence of toxicities are the main contributors as to why many patients don't benefit
- Successful treatment means long treatment cycle
- The common threads
 - Side effects are a major concern and limit the ability of dosing
 - Targeted Therapies: Playing a major role in the cancer treatment paradigm
 - Combinations of the two Probodyes would be great

Important to Explore Innovative Approaches to Enhancing Existing Established Targets and Novel “Undruggable” Targets



CytomX in 2019 and Beyond

Sean McCarthy, D.Phil.

President, Chief Executive Office and Chairman



Today's Key Takeaways

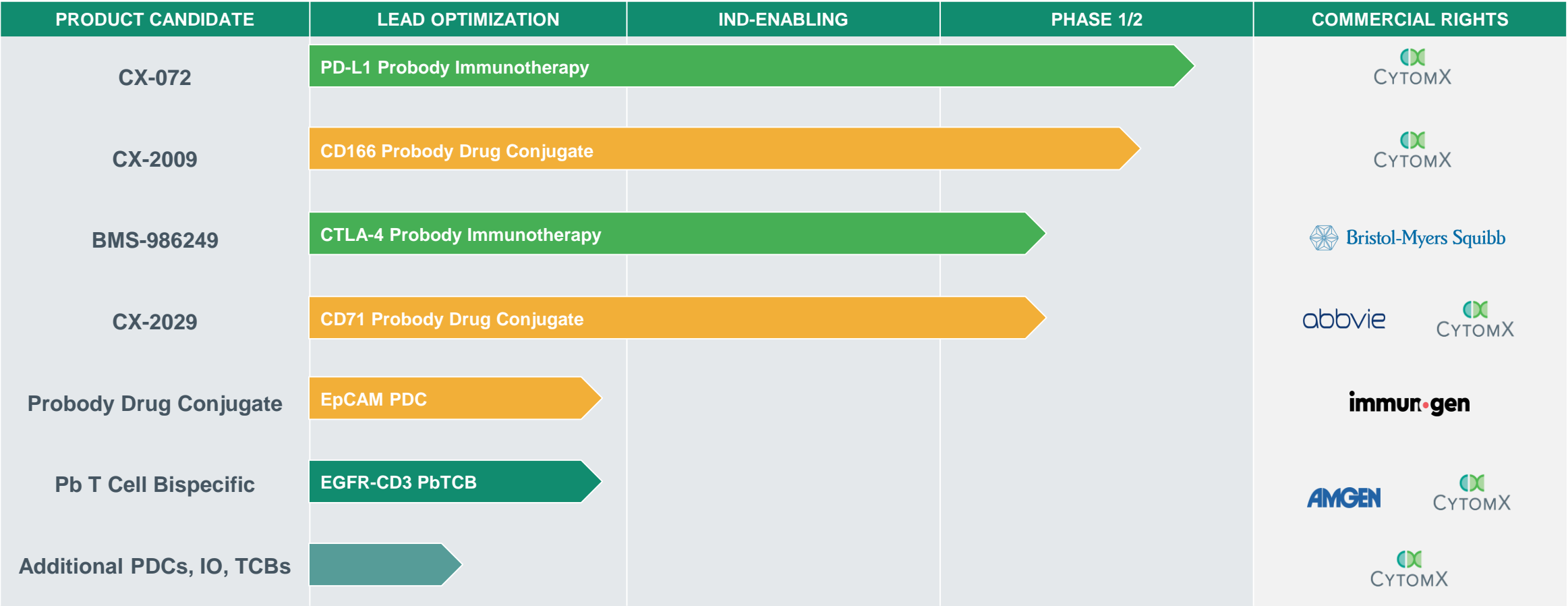


We are Building a Highly Innovative, Product Focused Company

- Probody Platform Proof-of-Concept Established
- Potentially Differentiated Products Emerging
- Platform Potential for New Targeted Therapies
- Maintained Progress Across Strategic Partnerships
- Strong Financial Position
- Seasoned and Experienced Team
- Highly Focused Execution Since 2015 IPO
- Multiple Catalysts 2019/2020



Deep and Differentiated Probody Pipeline



 Immunotherapies

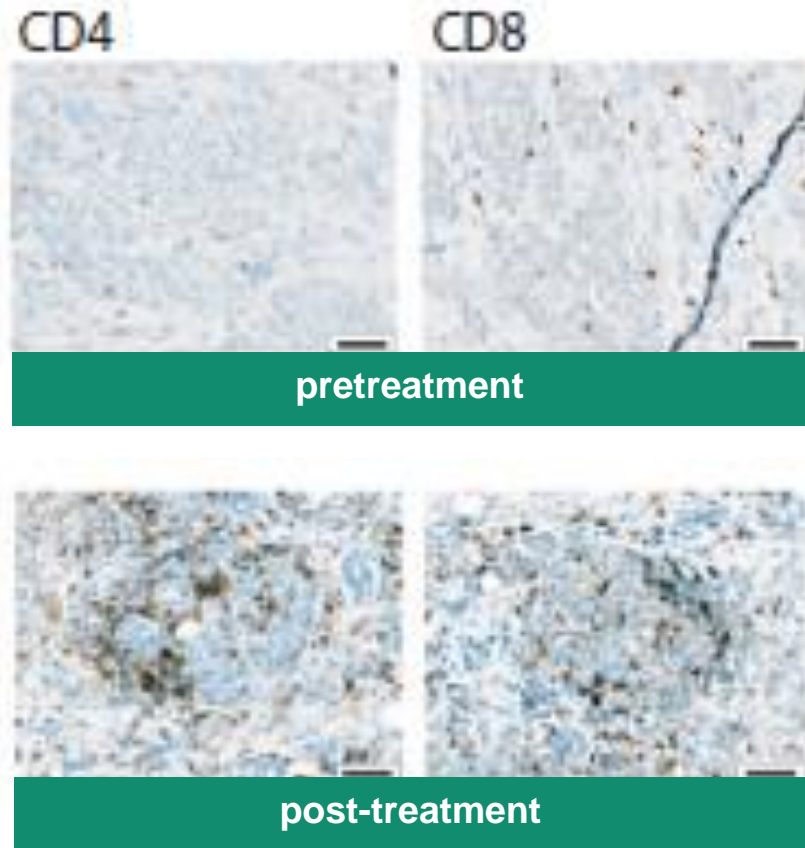
 Probody Drug Conjugates

 Pb T Cell Engaging Bispecifics

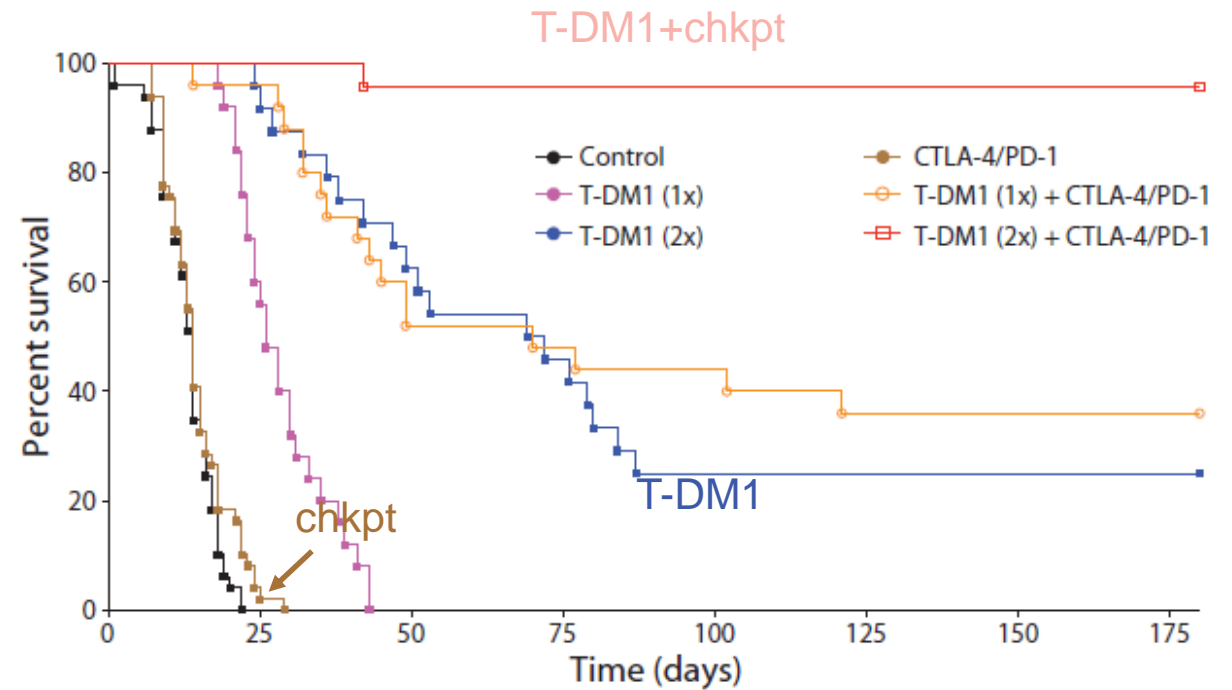
 Multiple Programs

Emerging Evidence for ADC and Checkpoint Inhibitor Synergy

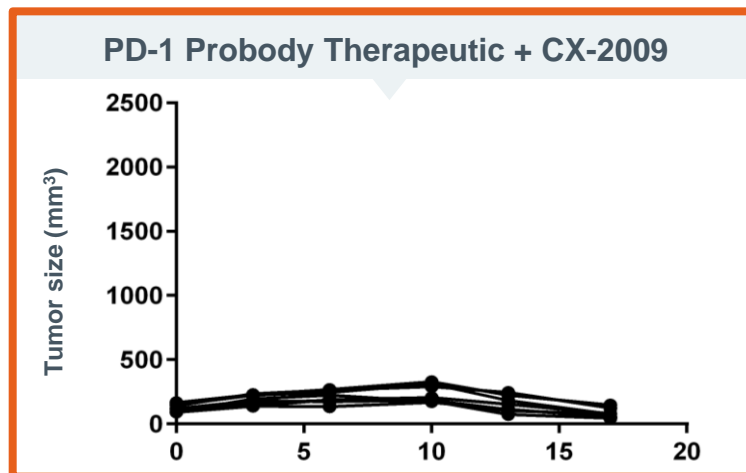
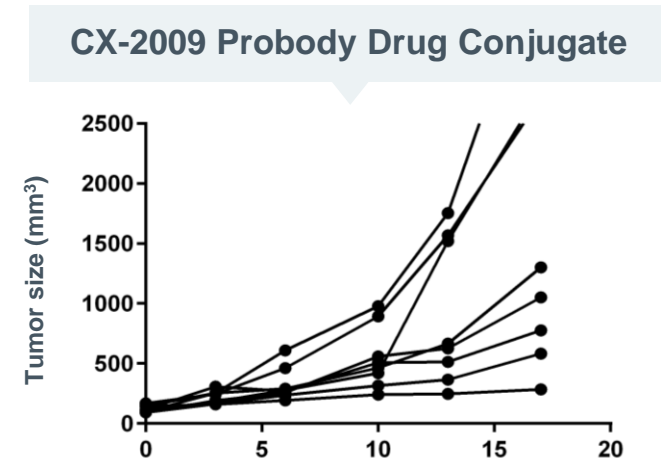
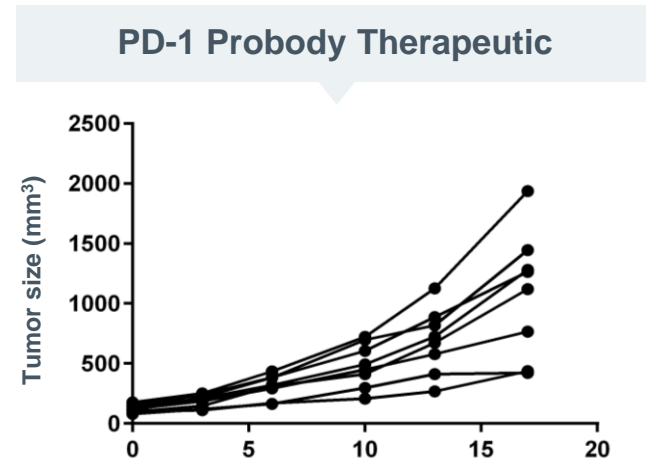
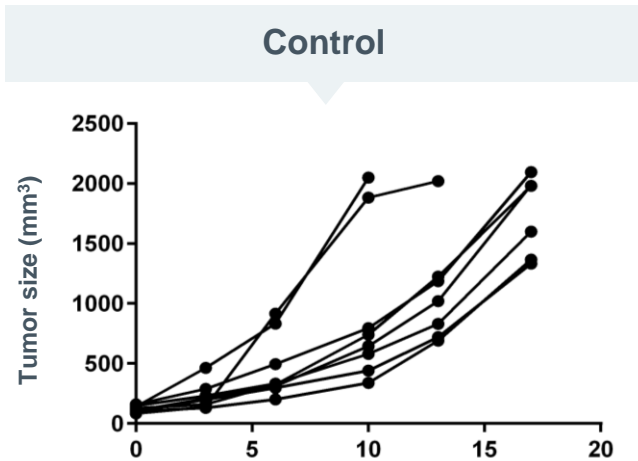
T-DM1 Increases TILs



T-DM1 + Checkpoint Blockade is Synergistic



Combination of CX-2009 and PD-1 Probody Therapeutic Demonstrates Synergistic Activity; Suggesting Potential for CX-072 + CX-2009 Combination



- Xenograft model relatively resistant to each drug alone
- Probody-Probody combination

Upcoming Milestones

PROCLAIM
CX-072

PROCLAIM
CX-2009

PROCLAIM-CX-072 (PD-L1 Probody Tx)

- Updates 2019:
Monotherapy Expansion
Data, Zelboraf®
Combination Data,
Ipilimumab Combination
Next Steps

PROCLAIM-CX-2009 (CD166 PDC)

- Update 2019: Additional
safety and efficacy
readout from Parts A
and A2, Cohort
Expansions Open

BMS-986249 (CTLA-4 Probody Tx)

- BMS Anticipates Data
Disclosures in 2019

Question & Answer Session



Closing Remarks

Sean McCarthy, D.Phil.

President, Chief Executive Office and Chairman





Thank You

