Creating Transformative Medicines to Improve Patients' Lives

Program Updates

December 2, 2024

Forward-Looking Statements and Disclaimers

This presentation includes certain forward-looking statements that involve risks and uncertainties that could cause actual results to be materially different from historical results or from any future results expressed or implied by such forward-looking statements regarding Janux Therapeutics, Inc. (the "Company"). These forward-looking statements include, but are not limited to, those regarding the Company's ability to bring new treatments to patients in need, the progress and expected timing of the Company's drug development programs, and clinical development plans and timelines and estimates regarding the Company's expenses and capital requirements. Because such statements are subject to risks and uncertainties, actual results may differ materially from those expressed or implied by such forward-looking statements. Factors that may cause actual results to differ materially include the risk that compounds that appeared promising in early research do not demonstrate safety and/or efficacy in later preclinical studies or clinical trials, the risk that the Company may not obtain approval to market its product candidates, uncertainties associated with performing clinical trials, regulatory filings and applications, risks associated with reliance on third parties to successfully conduct clinical trials, the risks associated with reliance on outside financing to meet capital requirements, and other risks associated with the process of discovering, developing and commercializing drugs that are safe and effective for use as human therapeutics, and in the endeavor of building a business around such drugs. Also, interim results of a clinical trial are not necessarily indicative of final results and one or more of the clinical outcomes may materially change following more comprehensive reviews of the data, as patient enrollment continues, and as more patient data become available, including the risk that unconfirmed responses may not ultimately result in confirmed responses to treatment after follow-up evaluations. In light of these risks, uncertainties, contingencies and assumptions, the events or circumstances referred to in the forward-looking statements may not occur. For a further list and description of the risks and uncertainties that the Company faces, please refer to the Company's periodic and other filings with the Securities and Exchange Commission, which are available at www.sec.gov. Such forward-looking statements are current only as of the date they are made, and the Company assumes no obligation to update any forward-looking statements, whether as a result of new information, future events, or otherwise. The trademarks included herein are the property of the owners thereof and are used for reference purposes only. Such use should not be construed as an endorsement of such products.

This presentation concerns therapeutic product candidates that are in preclinical and clinical development and which have not yet been approved for marketing by the U.S. Food and Drug Administration. They are currently limited by federal law to investigational use, and no representation is made as to their safety or effectiveness for the purposes for which they are being investigated.

Certain data in this presentation are based on cross-study comparisons and are not based on any head-to-head clinical trials. Cross-study comparisons are inherently limited and may suggest misleading similarities or differences. Actual results may differ from these comparisons. Differences exist between study or trial designs and subject characteristics, and caution should be exercised when comparing data across studies.

Janux – multiple near-term high value opportunities in CD3 TCE targets

JANX007

- PSMAxCD3-TRACTr to treat mCRPC demonstrated substantial clinical activity
  - Today's update focuses upon efficacy and safety data supporting selection of two step dose regimens for pre-Pluvicto 2L and 3L Phase 1b studies

JANX008

- EGFRxCD3-TRACTr providing entry point into multiple large indications
  - Dose escalation ongoing

Pipeline and Platform

- Clinical data demonstrates TRACTr can potentially improve safety *and* efficacy compared to contemporary TCEs
  - Multiple programs in development moving to clinical studies

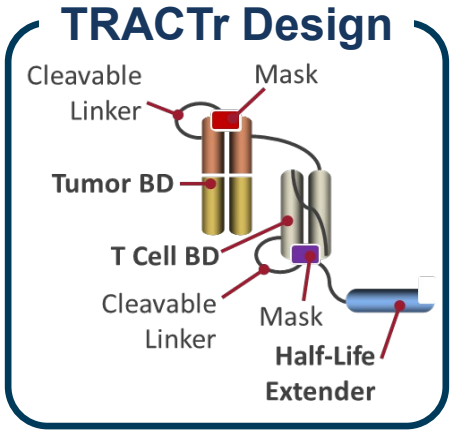
Cash Position

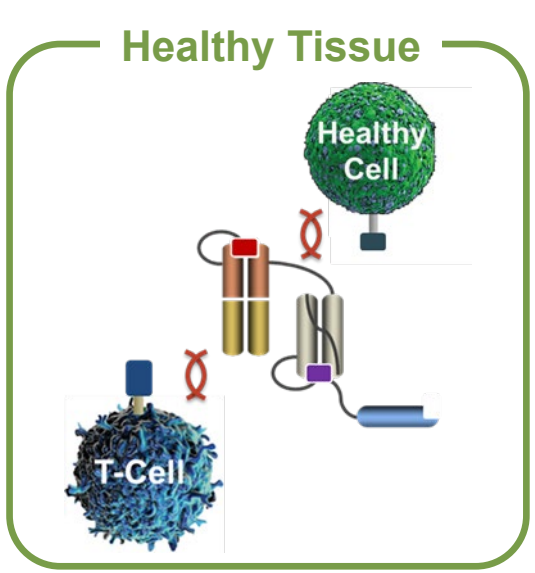
- Robust cash position of $658M* to support program advancement and operating plan through 2027, including PSMAxCD3 and EGFRxCD3 Phase 1b expansion studies

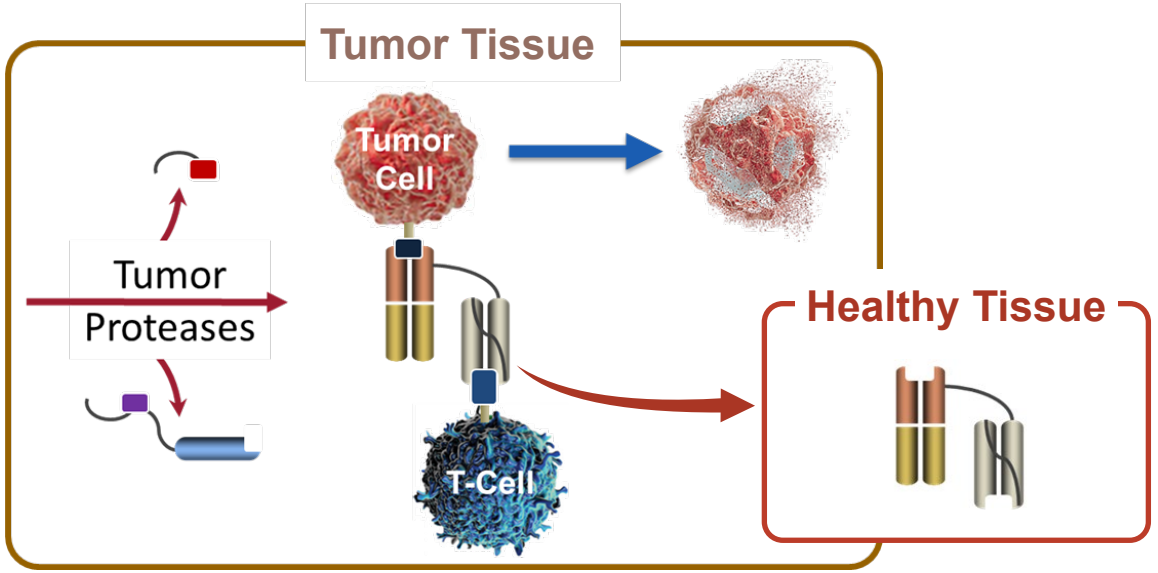
**As of Sept 30, 2024, includes cash and cash equivalents*

Janux Tumor Activated T-Cell Engager (TRACTr) platform design principles

Each program is designed as a potent T-cell engager with reduced toxicity







Masks block activity against healthy tissues to reduce CRS and on-target, healthy tissue toxicity

Tumor specific activation to maximize anti-tumor immune response

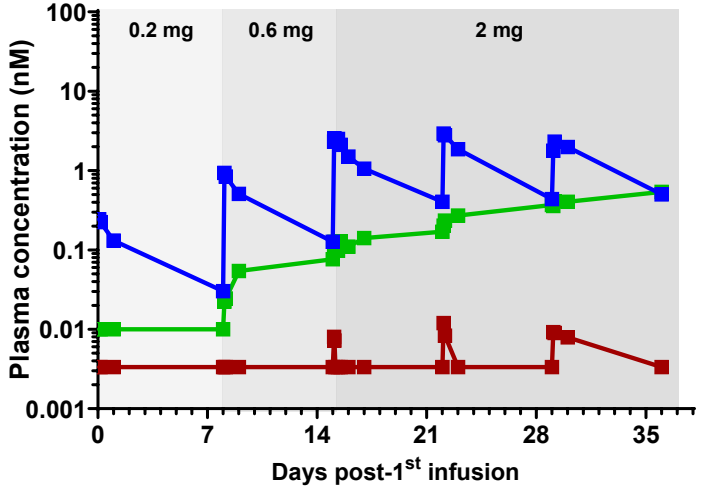
TCE is rapidly cleared from healthy tissue to limit systemic toxicity

Emerging JANX007 clinical data demonstrates TRACTr platform can potentially improve both safety *and* efficacy compared to contemporary TCEs

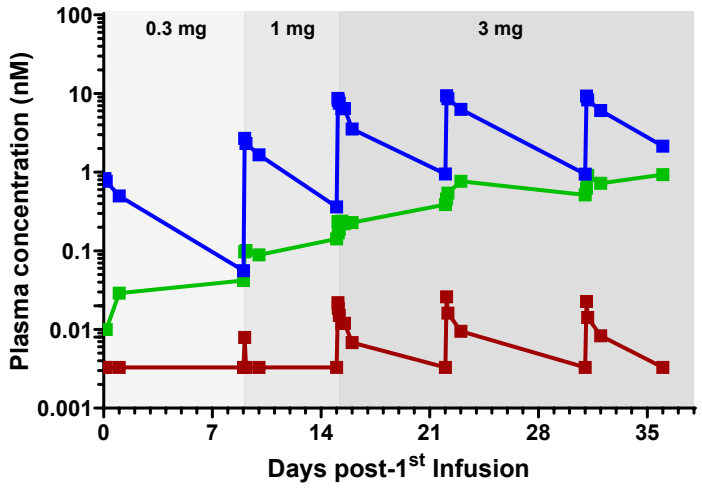
JANX007 clinical PK data continues to be consistent with TRACTr design principles

Prolonged TRACTr exposure with minimal accumulation of activated TCE

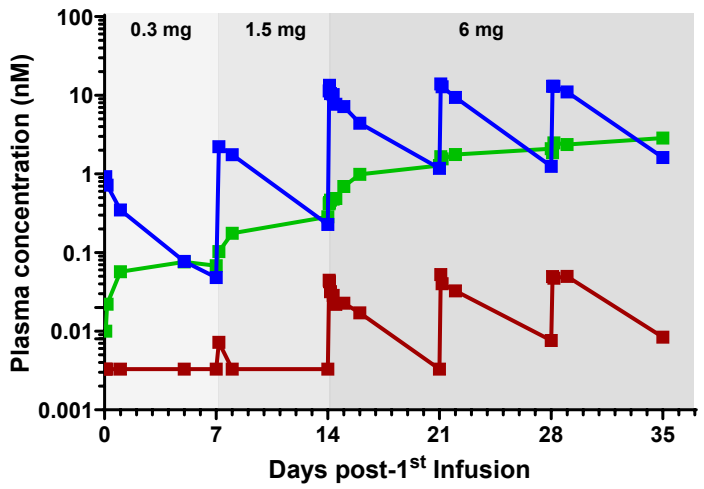
0.2/0.6/2 mg (single patient)



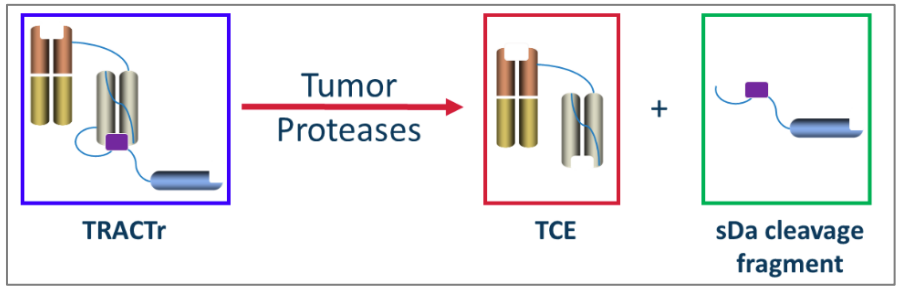
0.3/1/3 mg (single patient)



0.3/1.5/6 mg (single patient)



PSMA-TRACTr
sDa cleavage fragment
PSMA-TCE



Systemic levels of activated TCE remain more than 100-fold lower than TRACTr across doses

- Consistent with NHP safety studies and TRACTr design -

JANX007 Update

Resetting the bar in prostate cancer

Janux

JANX007 clinical development focusing upon pre-Pluvicto 2L and 3L settings

Deep and durable PSA declines coupled with a well tolerated safety profile supports development in early lines of treatment

	1L (80k)	2L				3L+	
JANX007	**1L treatment:**	Enzalutamide	Abiraterone	Docetaxel	PARPi combo	Pluvicto + SOC	
Future	**1L treated pts: (*US + EU5*)**	19K	21K	20K	6K	**Patients: (*US + EU5*)**	27K
Patient	**2L PFS: (*months*)**	Abi – 2.9 Doc - 6.8	Enza - 8.1 Doc - 4.4	Enza - 8.3 Abi - 5.6	NA	**3L PFS: (*months*)**	8.7
Opportunity							

Janux P1b will have readthrough into a potential multibillion dollar opportunity in 2L mCRPC

JANX007 dose escalation schema and update focus

QW cohorts prioritized to establish safety and efficacy profiles

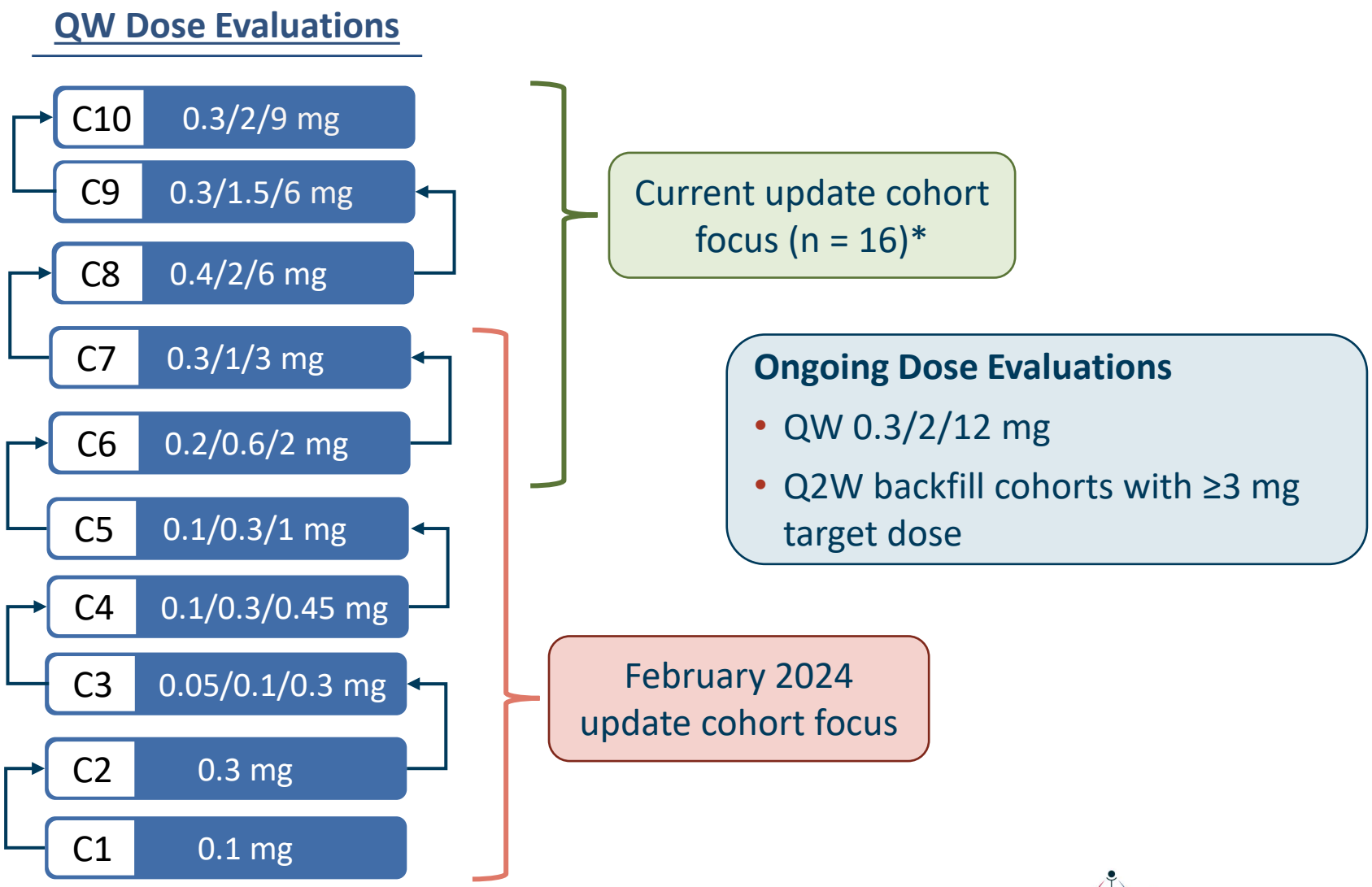
Eligibility Criteria

- Male ≥18 years of age at the time of signing informed consent
- Histologically or cytologically confirmed adenocarcinoma of the prostate
- mCRPC that progressed after ≥ 1 novel anti-androgen therapy and ≥ 1 taxane containing regimen. Participants that refused a taxane or are medically unsuitable to receive a taxane are eligible
- Adequate organ function

Patients not selected for PSMA expression

Objectives

- Primary
  - Safety
  - Tolerability
  - RP2D
- Secondary
  - PSA response (PSA50, PSA90)
  - Radiographic response



*Data cutoff: November 15, 2024; *Excludes patients previously exposed to Pluvicto*

JANX007 patient characteristics

Heavily pre-treated patients with a median of 4 prior lines of therapy

Characteristic	Patients with target dose ≥2 mg QW n=16
Median age, years (range)	71.5 (54 – 79)
Race, white / black / not reported, %	88 / 6 / 6
ECOG PS 0 / 1, n (%)	7 (44) / 9 (56)
PSMA positive at baseline, n (%)	16 (100)
Number of prior lines of therapy for mCRPC*, median (range)	4 (1 – 8)
≥ 4 prior lines, n (%)	9 (56)
Prior systemic therapy, n (%)	
AR inhibitor Docetaxel PARP inhibitor Cabazitaxel PSMA-targeting radioligand therapy (RLT)	16 (100) 10 (63) 2 (13) 2 (13) 0 (0)
Bone metastases, n (%)	15 (94)
Lymph node metastases, n (%)	11 (69)
Visceral metastases, n (%)	3 (19)
Lung, n (%) Liver, n (%) Adrenal, n (%)	2 (13) 1 (6) 1 (6)
Baseline PSA, ng/mL, median (range)	80.9 (1.03 – 1991.6)

**Number or prior lines of therapy does not include androgen deprivation therapy*

JANX007 highly competitive clinical data profile supports development in early lines of therapy

Increased Response Rate*

Patients with ≥50% PSA reduction

Feb 2024: 83%

Dec 2024: 100%

Deepening PSA Declines*

Patients with ≥90% PSA reduction

PSA90: 17% → 63%

PSA99: 0% → 31%

Improved PSA Durability*

PSA declines thru 12wks

≥PSA50 at 12-weeks: NE → 75%

≥PSA90 at 12-weeks: NE → 50%

Resistance Driver Activity

AR mutants, variant-7, amplifications; BRCA1/2, PI3K, PTEN, TP53

PSA50 100%, PSA90 54%

Well-Tolerated

- CRS and TRAEs primarily limited to Cycle 1 and lower grades
- MTD has not been reached

Encouraging Anti-Tumor Activity

ORR†: 50%

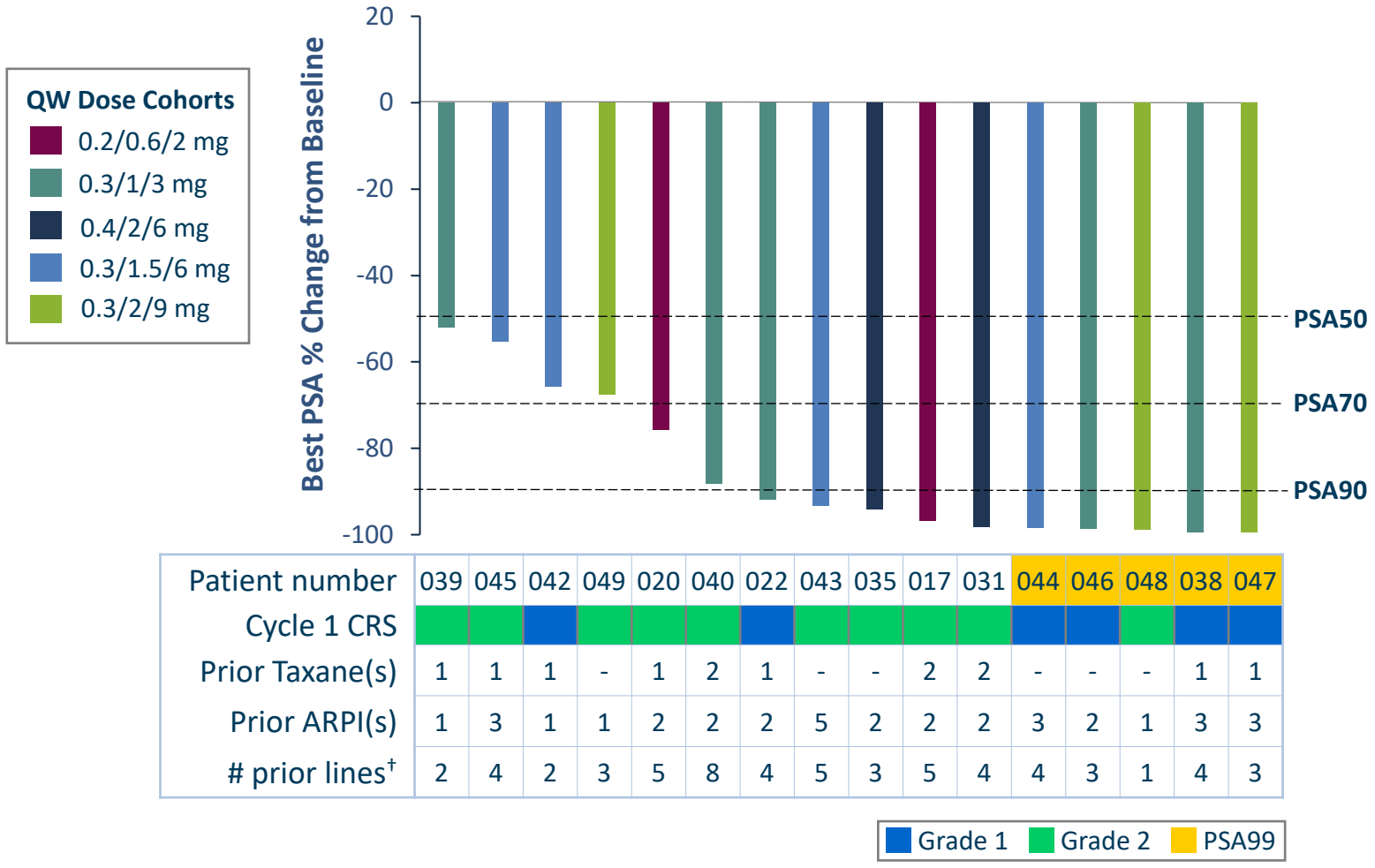
DCR†: 63%

**February 2024 vs December 2024 updates; †Includes confirmed and unconfirmed*

Janux

Deep PSA declines coupled with predictable, transient and easily managed CRS in 5L pts

Response rate not impacted by prior therapies

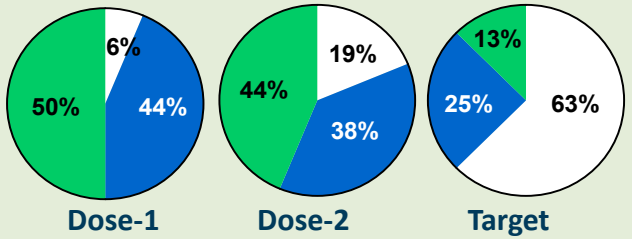


Patient number	039	045	042	049	020	040	022	043	035	017	031	044	046	048	038	047
Cycle 1 CRS																
Prior Taxane(s)	1	1	1	-	1	2	1	-	-	2	2	-	-	-	1	1
Prior ARPI(s)	1	3	1	1	2	2	2	5	2	2	2	3	2	1	3	3
# prior lines†	2	4	2	3	5	8	4	5	3	5	4	4	3	1	4	3

Grade 1 Grade 2 PSA99

- JANX007 drove rapid and deep PSA declines
  - 100% PSA50, 63% PSA90, 31% PSA99
- Competitor PSA50/90 levels*
  - 48% / 28% with 3L Pluvicto + SOC
  - 50% / 28% with 4L AMG509
- High PSA response rate regardless of prior taxane/ARPI treatment
- CRS was predictable, transient and easily managed
  - Primarily occurs in cycle 1
  - Onset and duration in day 1

% CRS by grade in cycle 1



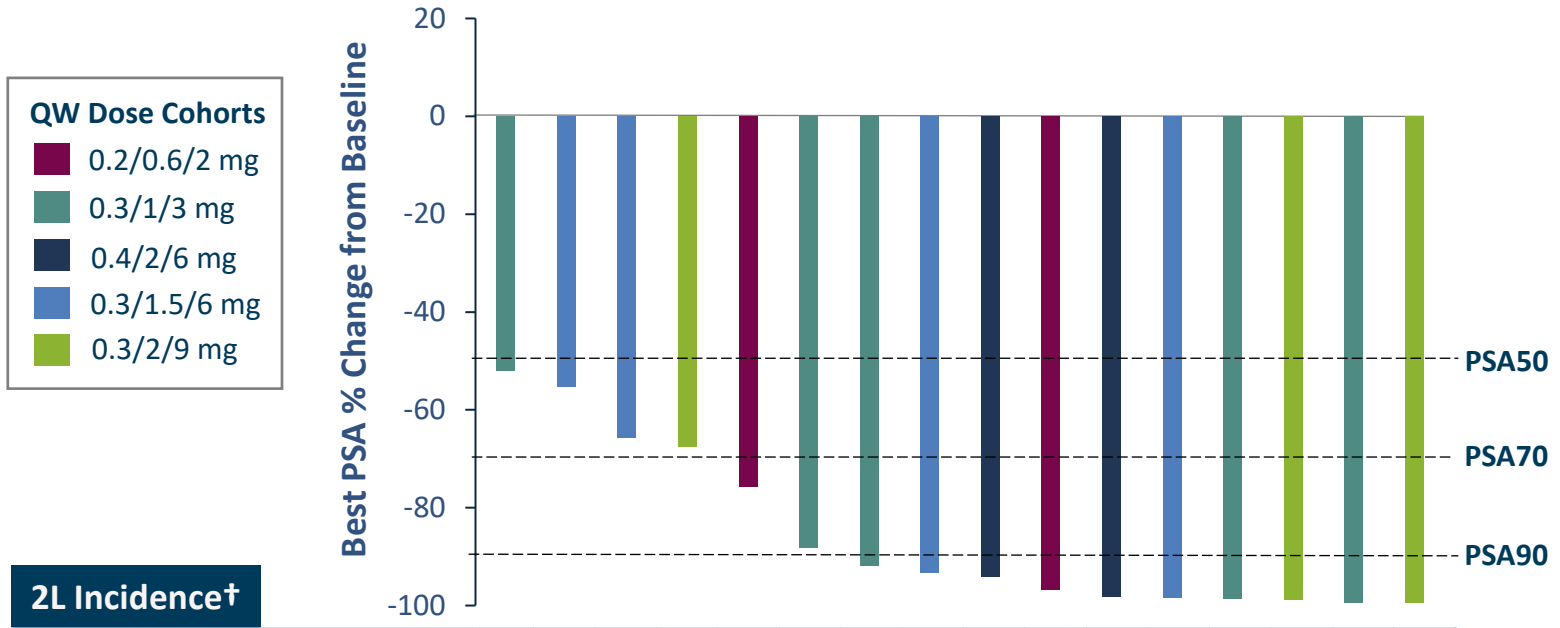
Deep PSA declines in heavily treated 5L patient population regardless of prior taxane and ARPI use

*†Excludes ADT; *This information is provided for illustrative purposes only and is not a head-to-head comparison*

Janux

Deep PSA responses irrespective of resistance driver aberration status

JANX007 retained full activity against wild-type and resistant patient populations



- Patients harboring key resistance drivers (n = 13)
  - 100% PSA50, 54% PSA90, 23% PSA99
- WT patients (n = 3)
  - 100% PSA90, 67% PSA99
- Provides potential opportunity to:
  - Treat broader patient segments
  - Combine with approved drugs

2L Incidence†																
12K	AR-mutant					L,T	L,H					L				T	L,T
18K	AR-V7	+	+	+	+	+		+			+					+	+
18K	AR-amp		+	+	+							+					
17K	*HRRm			+	+	+				+			+			+	+
12K	Other		+	+	+	+	+				+	+				+	+

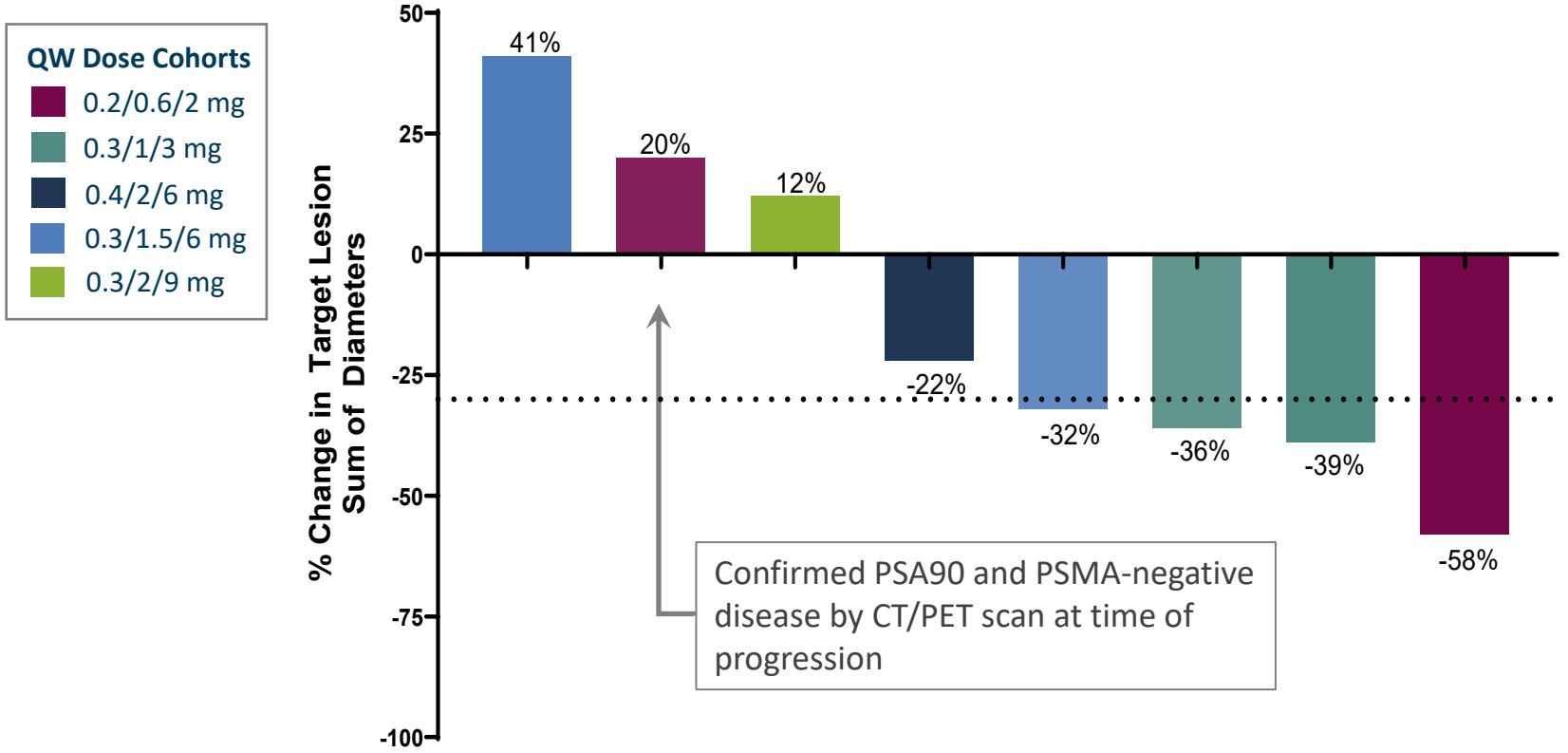
AR-mutants
L: L702H; H: H875Y; T: T878A/S

Other
p53, MYC, PI3K, PTEN, TMPRSS2

JANX007 demonstrated robust activity against wildtype and major drug resistance driver mutations/aberrations

**Mutations within either of 13 HRR genes in Foundation One Panel; †US/EU incidence*

Encouraging anti-tumor responses in RECIST evaluable 5L patients supports progression to Ph1b studies

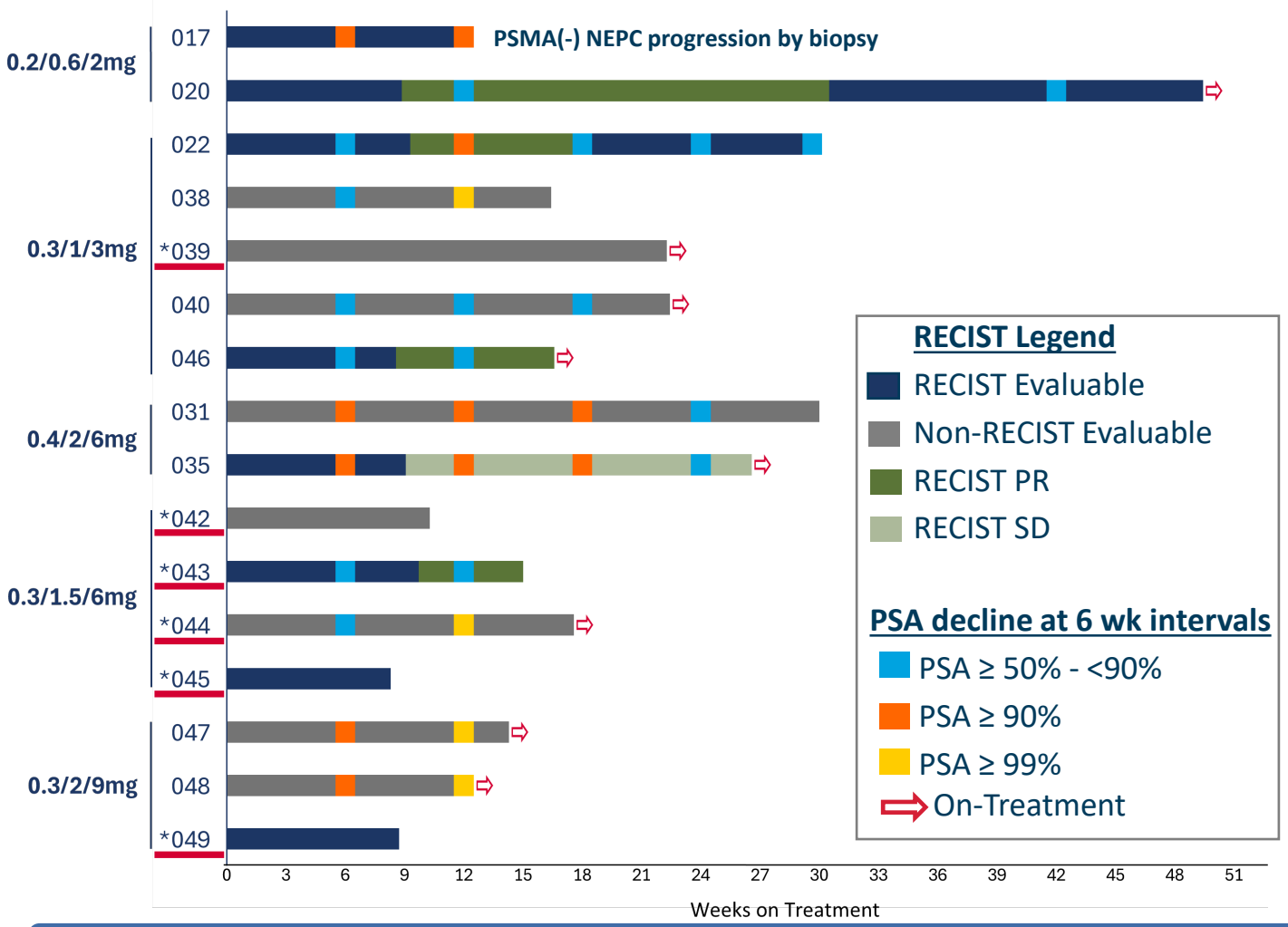


- Early indication of significant anti-tumor activity
  - 5/8 patients had tumor reductions from baseline
  - 4/8 patients had ≥30% tumor reductions from baseline
  - 50% ORR†, 63% DCR†
- Competitor results**
  - 30% ORR with 3L Pluvicto + SOC
  - 20% ORR with 4L AMG509

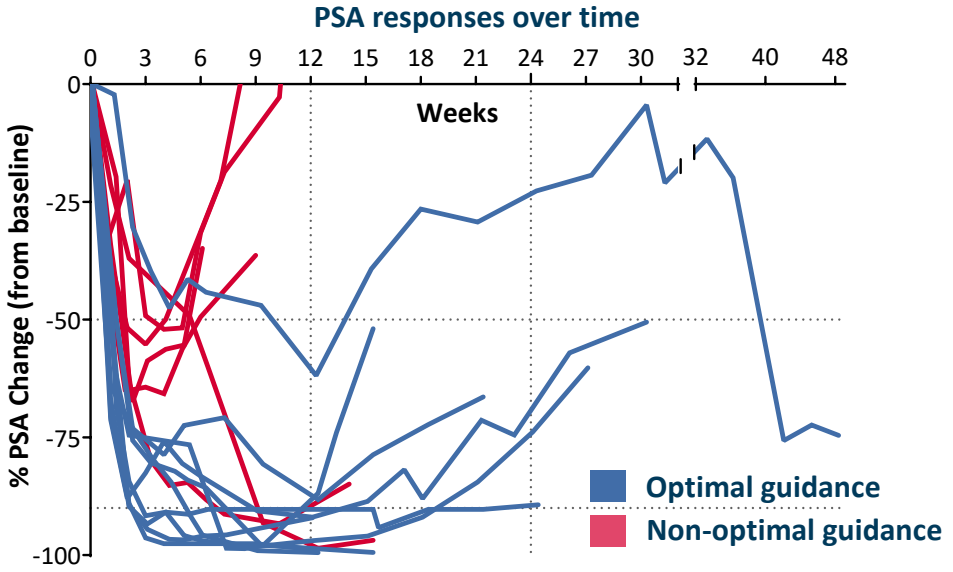
Patient number	045	017	049	035*	043	046*	022	020*
Best response	PD	PD	PD	SD	uPR	uPR	uPR	cPR
PSA at 12wks	NA	PSA90	NA	PSA90	PSA50	PSA50	PSA90	PSA50

Treatment ongoing; †Includes confirmed and unconfirmed;
***This information is provided for illustrative purposes only and is not a head-to-head comparison*

Encouraging early signs of durability with JANX007



- Deep and durable PSA declines in both measurable and bone only disease
  - ≥ PSA50 at 12wks = 75%
  - ≥ PSA90 at 12wks = 50%
- Encouraging early RECIST anti-tumor responses
  - ORR† = 50%

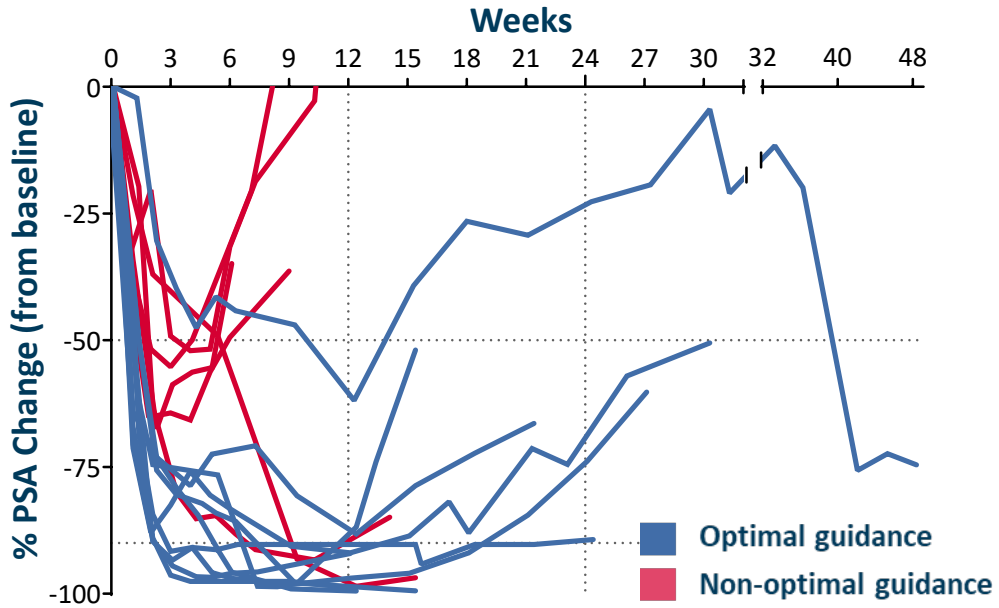


Encouraging depth and durability of PSA declines supports development in earlier lines of therapy

*Non-optimal treatment guidance; †Includes confirmed and unconfirmed

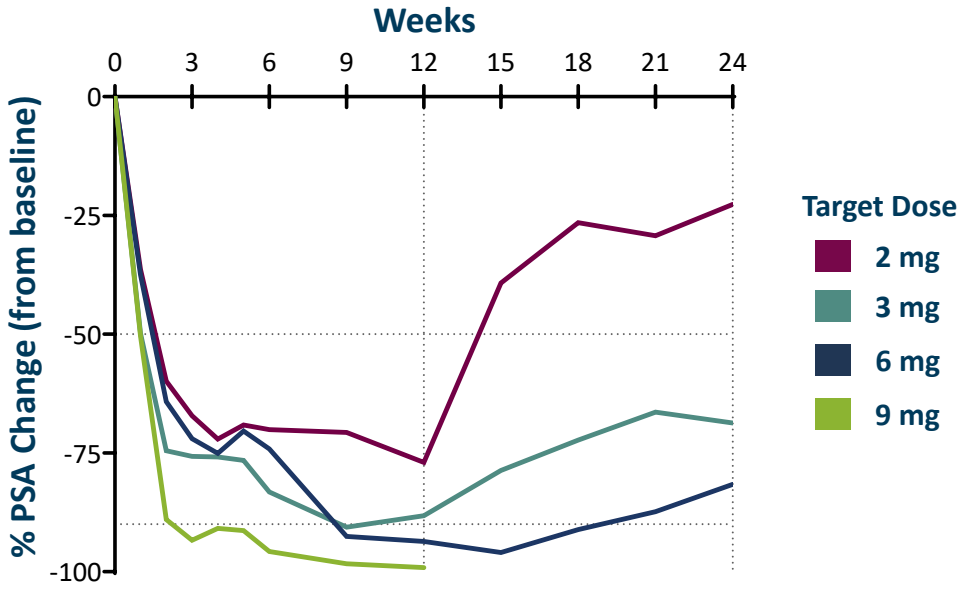
Treatment guidance optimization and target dose escalation

Impact of modified guidance on PSA declines



- JANX007 exhibited predictable CRS onset and duration that rapidly responded to treatment < 24h
- Treatment with steroids beyond the resolution of CRS may negatively impact efficacy (red curves)
- *New guidance provides opportunity to further improve responses*

PSA durability is target dose dependent (median PSA*)

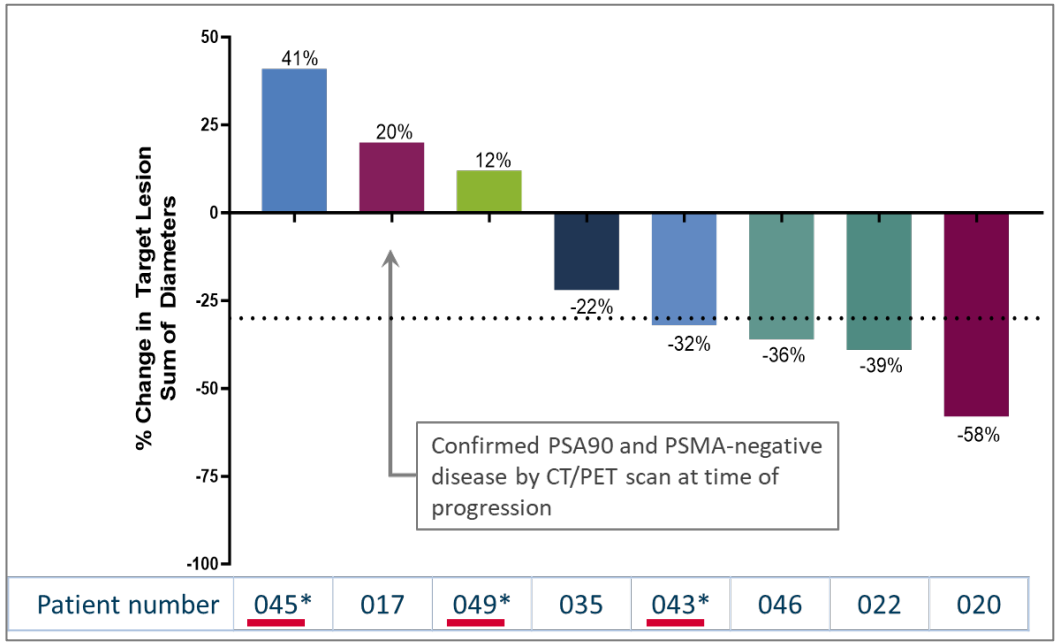


- Higher target doses are associated with more durable PSA responses
- Results are consistent with hypothesis that target dose is primary determinant of a durable response

Optimized dosing guidance and increased target dose results provide attractive path forward

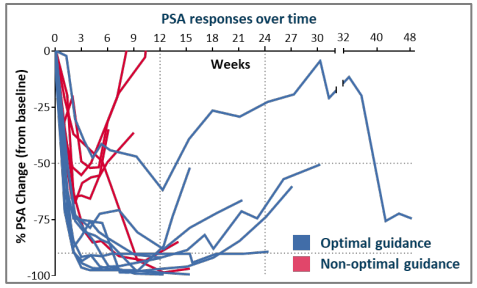
**Median PSA response by target dose (includes interpolated values)*

Potential impact of treatment guidance optimization



QW Dose Cohorts

- 0.2/0.6/2 mg
- 0.3/1/3 mg
- 0.4/2/6 mg
- 0.3/1.5/6 mg
- 0.3/2/9 mg

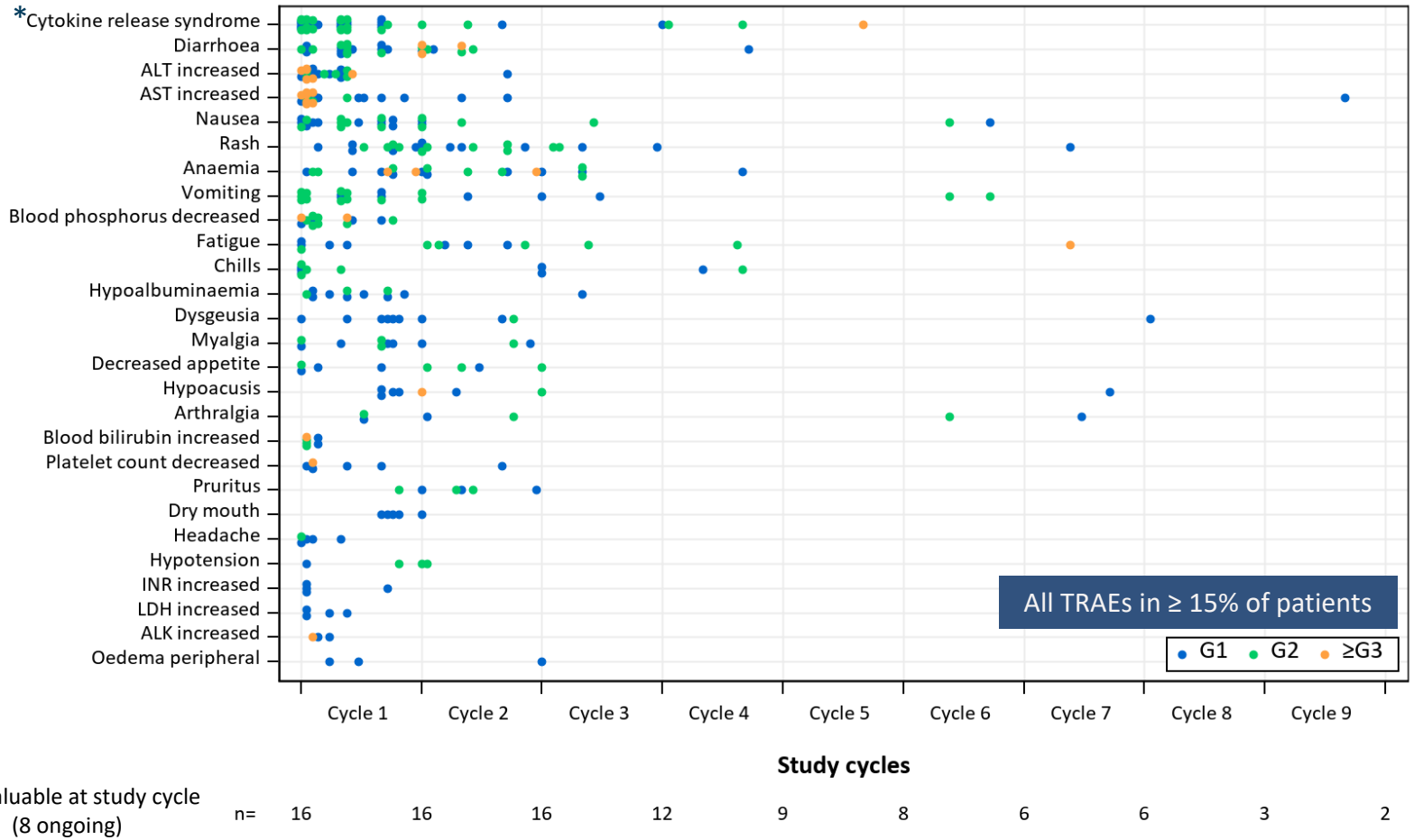


Improved treatment guidance provides an opportunity to further improve JANX007 responses

**Non-optimal guidance*

Janux

JANX007 was well tolerated with a predictable safety profile



Majority of TRAEs occur in Cycle 1

- Highest event incidence after step 1 dose
- CRS events in C2+ are infrequent and primarily associated with intra-patient escalation and/or extended treatment delays

**CRS mitigation non-conformance: in a single patient JANX007 was administered in Cycle 5 without appropriate CRS mitigation following an extended dose delay (rabies exposure) leading to a G3 CRS event. Subject has received multiple doses since the event with no recurrence of CRS.*

All TRAEs in ≥ 15% of patients

Event	Cycle 1	Cycle 2	Cycle 3+
% TRAEs	71%	19%	10%
% of all ≥ G3 events	74%	19%	7%

CRS and TRAEs have been transient and predominantly occurred in cycle 1

Predictable safety profile in patients treated with weekly target dose ≥2 mg

Preferred Term	TRAEs (max grade) in ≥ 15% of patients (n=16)			
	Grade 1	Grade 2	Grade ≥3	All Grades
Cytokine release syndrome	6 (38)	9 (56)	1 (6)	16 (100)
ALT increased*	6 (38)	3 (19)	3 (19)	12 (75)
AST increased*	5 (31)	1 (6)	6 (38)	12 (75)
Diarrhea	4 (25)	5 (31)	2 (13)	11 (69)
Vomiting	1 (6)	10 (63)	0	11 (69)
Fatigue	4 (25)	5 (31)	1 (6)	10 (63)
Dysgeusia	8 (50)	1 (6)	0	9 (56)
Nausea	2 (13)	7 (44)	0	9 (56)
Rash	4 (25)	5 (31)	0	9 (56)
Hypophosphatemia	3 (19)	5 (31)	1 (6)	9 (56)
Chills	4 (25)	4 (25)	0	8 (50)
Hypoacusis	4 (25)	1 (6)	1 (6)	6 (38)
Dry mouth	5 (31)	0	0	5 (31)
Headache	4 (25)	1 (6)	0	5 (31)

Preferred Term	TRAEs (max grade) in ≥ 15% of patients (n=16)			
	Grade 1	Grade 2	Grade ≥3	All Grades
Anemia**	1 (6)	1 (6)	2 (13)	4 (25)
Arthralgia	1 (6)	3 (19)	0	4 (25)
Blood bilirubin increased	0	3 (19)	1 (6)	4 (25)
Decreased appetite	2 (13)	2 (13)	0	4 (25)
Myalgia	2 (13)	2 (13)	0	4 (25)
Platelet count decreased	3 (19)	0	1 (6)	4 (25)
Blood alk phos increased	2 (13)	0	1 (6)	3 (19)
Blood LDH increased	3 (19)	0	0	3 (19)
Hypoalbuminemia	2 (13)	1 (6)	0	3 (19)
Hypotension	1 (6)	2 (13)	0	3 (19)
INR increased	3 (19)	0	0	3 (19)
Oedema peripheral	3 (19)	0	0	3 (19)
Pruritus	1 (6)	2 (13)	0	3 (19)

CRS graded by ASTCT 2019 criteria; all non-CRS TRAEs assessed per NCI-CTCAE v5.0

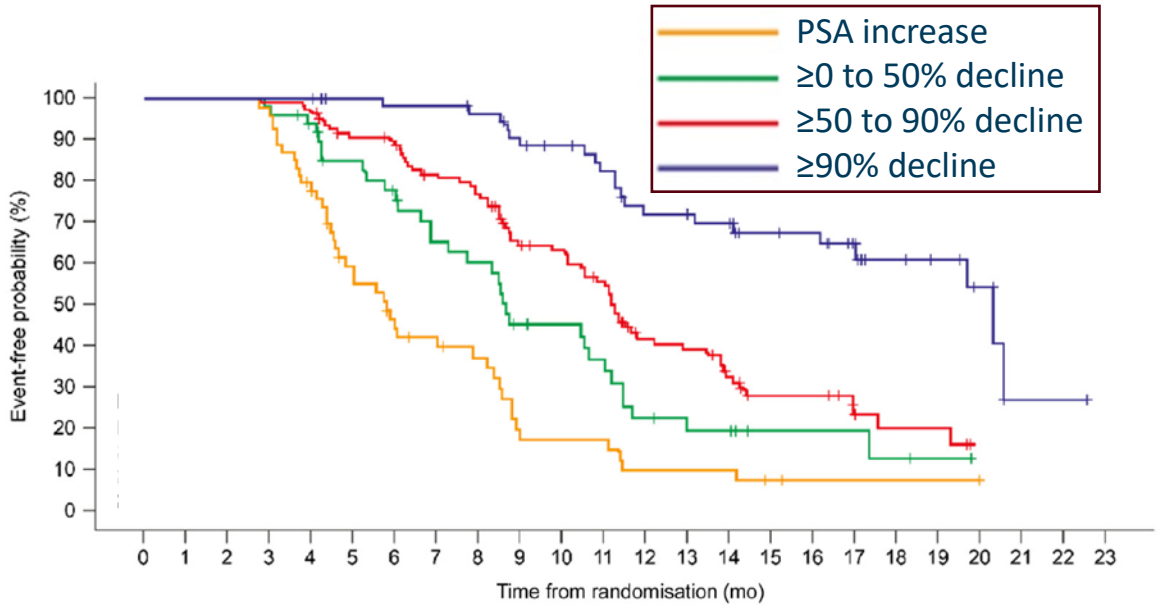
Majority of TRAEs were transient, predictable and known to be associated with CRS

**Transient and asymptomatic AST/ALT elevations*
***G3 anemia reported in 2 patients with G1/2 at baseline*

Janux

Pluvicto VISION study correlated PSA declines up to 12 weeks with rPFS and OS

Pluvicto's rPFS by PSA decline at 12 weeks



Encouraging 12-week PSA durability with JANX007

12wk PSA Range	JANX007 (5L)	Pluvicto + SOC (3L)		
Characteristic	% pts	% pts	rPFS	mOS
PSA increase	6%	29%	5.8	9.8
≥0 to <50%	0%	17%	8.7	14.0
≥50 to <90%	25%	28%	11.3	18.3
>90%	50%	15%	20.3	NE

- A high percentage of JANX007 treated-patients maintained PSA declines ≥PSA50 and PSA90 at 12 weeks and supports an anticipated survival benefit

JANX007 high rate of PSA50 and PSA90 declines at 12 weeks supports opportunity to achieve meaningful PFS/OS

Armstrong, 2024; Information provided above is for illustrative purposes only and is not a head-to-head comparison

Janux

JANX007 5L study demonstrated compelling PSA declines and durability

Characteristic	Median Tx line	mPFS	ORR	Best PSA decline ≥ 50%	Best PSA decline ≥ 90%	≥ PSA50 at 12wks**	≥ PSA90 at 12wks**
JANX007 (≥ 2mg target)	**5L**	7.4 mo† (8/16 IP*)	††50%	100%	63%	75%	50%
Pluvicto + SOC (7.4 GBq)	**3L**	8.7 mo (SOC 3.4 mo)	30%	48%	28%	43%	15%
AMG509 (≥ 0.75 mg target)	**4L**	7.8 mo	20%	50%	28%	24%	NR
ARX517 (≥ 2 mg)	**5L**	NR	25%	52%	26%	NR	NR

JANX007 - December 2024; Pluvicto - Sartor 2021, Armstrong 2024; AMG509 – Kelly, ESMO 2024; ARX517 - Shen, ESMO 2023
Information provided above is for illustrative purposes only and is not a head-to-head comparison

JANX007 has the potential to change the treatment landscape in prostate cancer

**IP = in-progress; †Median PFS calculation limited by small sample size and duration of follow-up, ongoing patients censored at the time of cut-off; **PSA50(90) at 12wks / patients treated; ††Includes confirmed and unconfirmed*

Janux

Current 2L mCRPC treatments highlight the opportunity for JANX007

JANX007 5L results compare favorably to 2L drugs

5L Treatment	PFS *(months)*	ORR†	PSA90	PSA50
JANX007	7.4*	50%	63%	100%

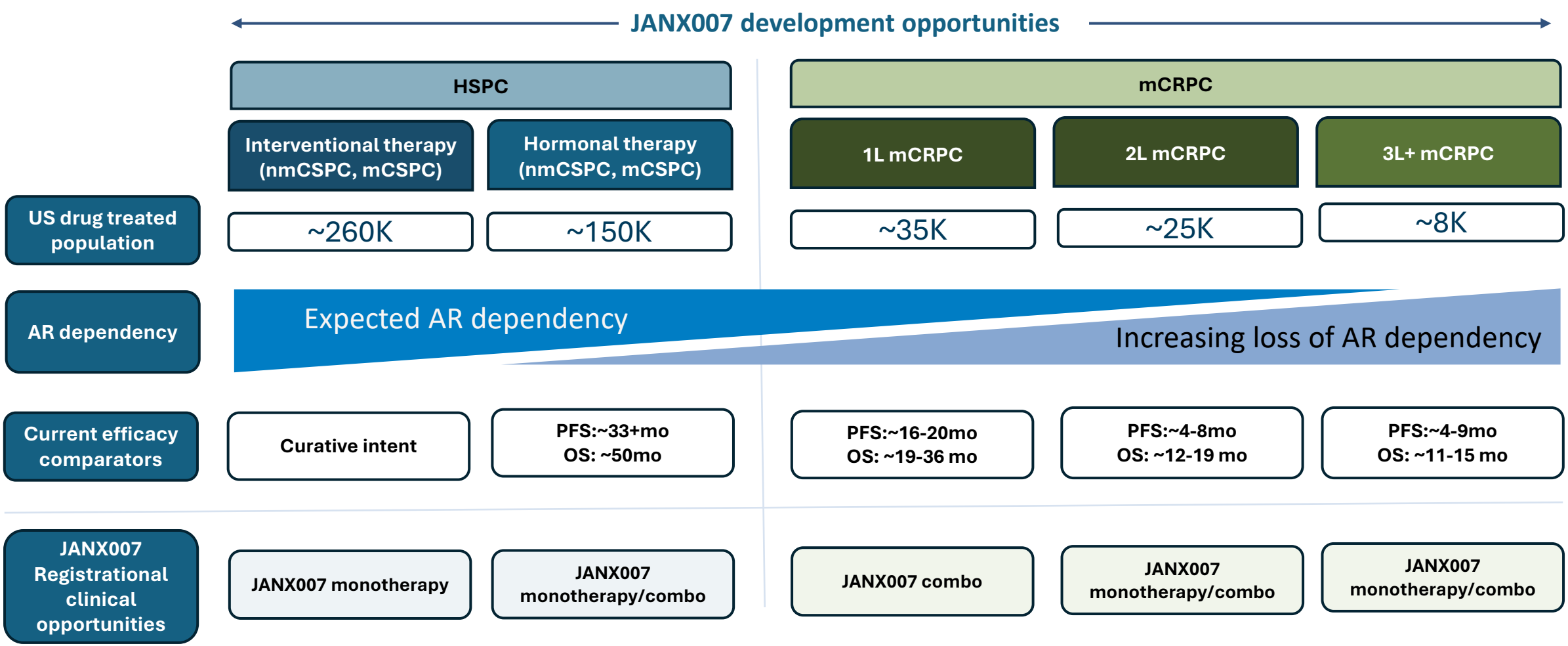
1L Treatment	2L	PFS *(months)*	ORR	PSA90	PSA50
Enzalutamide	Abi	2.9	0%	1%	13%
	Doc	6.8	39%	3%	43%
Abiraterone	Enza	8.1	12%	12%	29%
	Doc	4.4	11%	6%	35%
Docataxel	Abi	5.6	14%	25%	48%
	Enza	8.3	29%	25%	54%
ARPi or Abi	Pluvicto	11.6	50%	33%	58%

- Pluvicto in earlier line treatment (2L vs 3L) - PFS improved by 35-40% (12 vs 8.7 months) -

†*Includes confirmed and unconfirmed; *8/16 patients in-progress;*
Information provided above is for illustrative purposes only and is not a head-to-head comparison

Janux

JANX007 is positioned to treat patients across the continuum of prostate cancer care



JANX007 has the potential to address a broad segment of prostate cancer patients

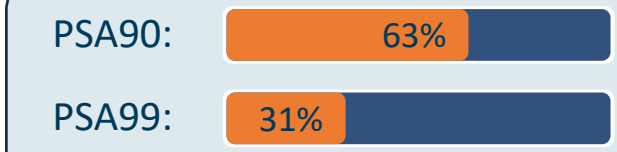
JANX007 – resetting the bar in prostate cancer

High rate of rapid, deep and durable responses, coupled with a predictable and well tolerated safety profile supports development in early lines of treatment

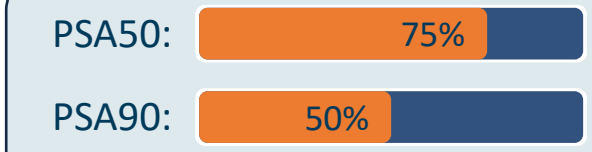
High PSA Response Rate

Patients with >50% PSA reduction

Deep PSA Declines



Durable PSA Declines at 12wks



Resistance Driver Activity

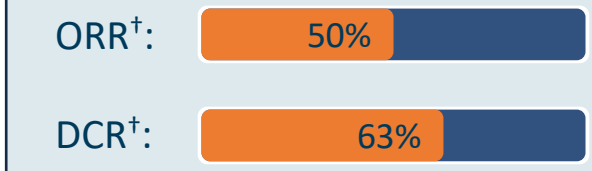
AR mutants, variant-7, amplifications; BRCA1/2, PI3K, PTEN, TP53

PSA50 100%, PSA90 54%

Well-Tolerated

- CRS and TRAEs primarily limited to Cycle 1 and lower grades
- MTD has not been reached

Encouraging Anti-Tumor Activity



Encouraging early data highlights potential for best-in-treatment opportunity

†*Includes confirmed and unconfirmed*

Janux

JANX007 – clinical plans and opportunities

Large Opportunity

- JANX007's unique MoA generated safety window potentially enables substantial efficacy in heavily treated patients
  - Clinical development plan will focus upon pre-Pluvicto 2L and 3L patients

Proof-of-Principle

- Two QW step dose regimens identified for Phase 1b expansion studies directed at pre-Pluvicto 2L and 3L patients
  - 0.3/1.5/6mg and 0.3/2/9 mg
- Ongoing Phase 1a evaluations:
  - Q2W dosing >3 mg target dose to identify Q2W regimen for project Optimus evaluation
  - QW 0.3/2/12 mg to evaluate safety window and determine if efficacy has plateaued

Forward Momentum

- Combination of efficacy and well tolerated safety profile positions JANX007 to move into early lines of therapy
- Positive data in 2L enzalutamide combo and 3L Optimus studies provides opportunity to move JANX007 into earlier lines of therapy

Janux

JanuxRx.com

David Campbell, Ph.D.
President and CEO

10955 Vista Sorrento Parkway
San Diego, CA 92130
dcampbell@januxrx.com