

ALX ONCOLOGY

March 19, 2021

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This presentation concerns drugs that are under clinical investigation and which have not yet been approved for marketing by the FDA. It is currently limited by Federal law to investigational use, and no representation is made as to its safety or effectiveness for the purposes for which it is being investigated.

This presentation also contains estimates and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions, and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk.

TEAM



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venBio



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OVERVIEW

ALX Oncology (Nasdaq: ALXO) is a clinical-stage immuno-oncology company focused on helping patients fight cancer by developing therapies that block the CD47 checkpoint pathway and bridge the innate and adaptive immune system

Lead product candidate ALX148 initiating multiple Phase 2 trials

CD47 blocker

- Designed for use in combination
- Tolerability profile enables higher dosing
- Higher dosing may enable greater efficacy

Clinical proof-of-principle in both hematologic and solid tumors

Initial focus on solid tumors, MDS, and AML

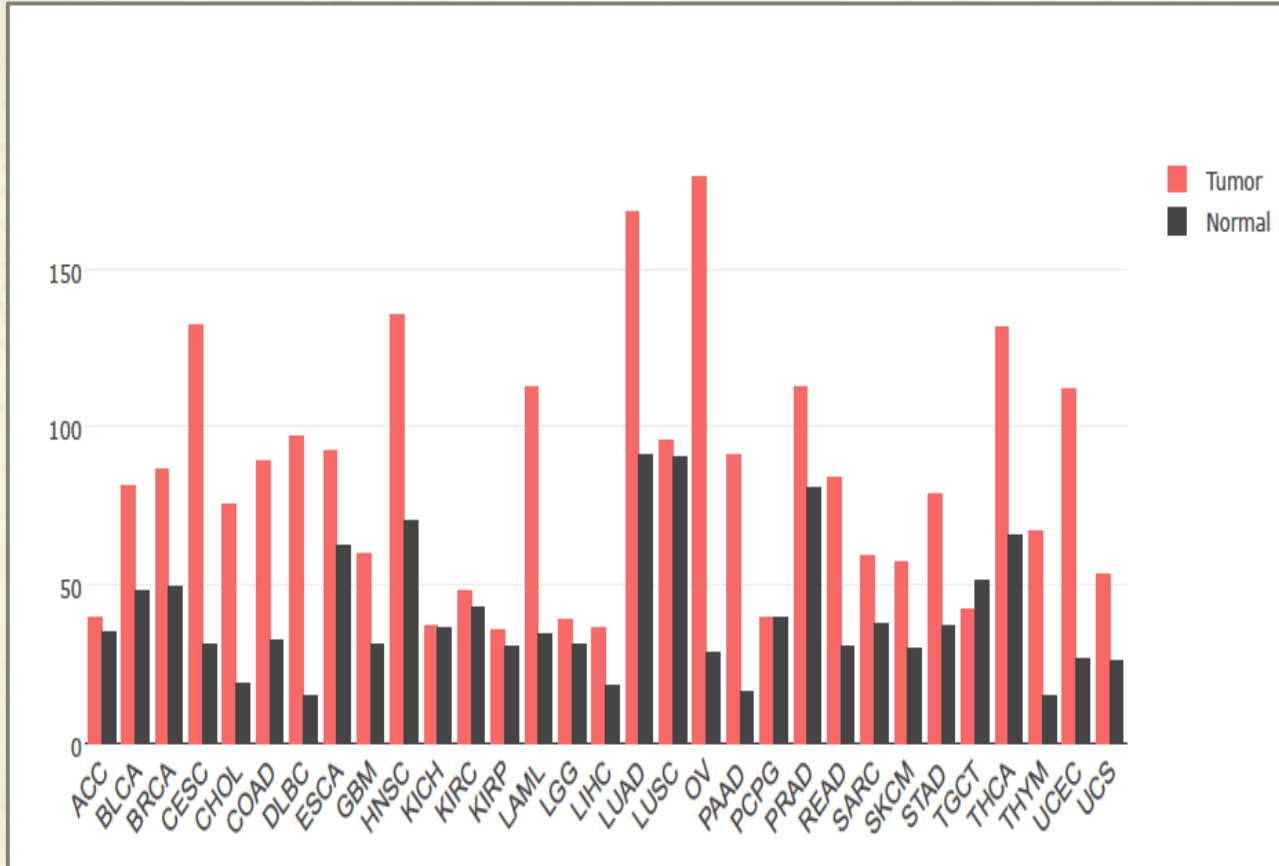
Early-stage antibody candidate for systemic CpG delivery (SIRP α TRAAC*)

- IND by end of 2022

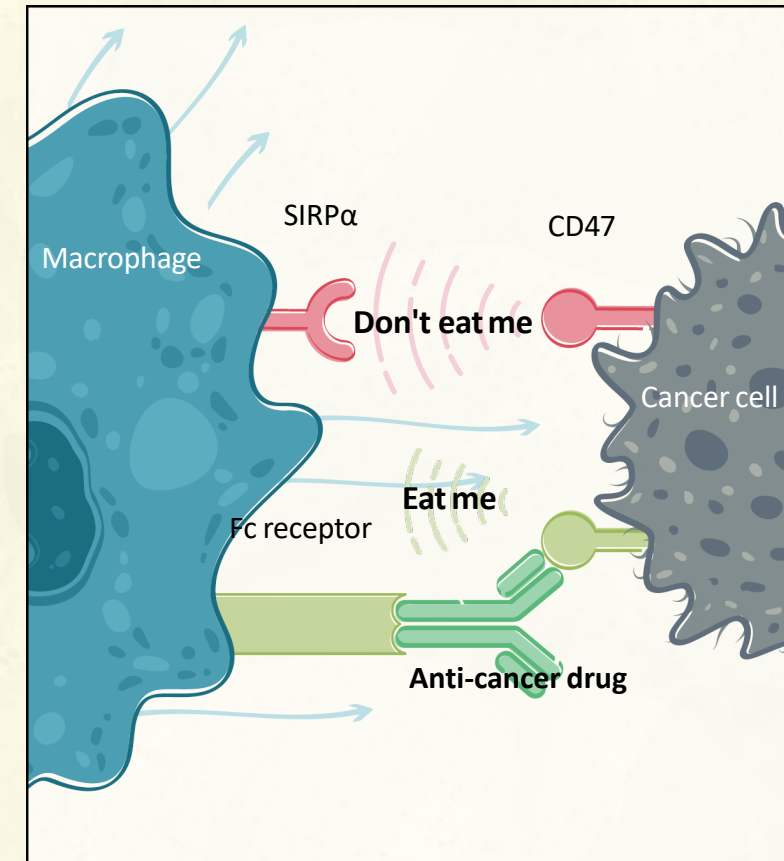
*SIRP α Toll-like receptor agonist antibody conjugate (TRAAC)

CD47: TUMOR ASSOCIATED ANTIGEN (TAA)- MYELOID CHECKPOINT DUALITY

TAA-Expression levels on cancer and normal cells

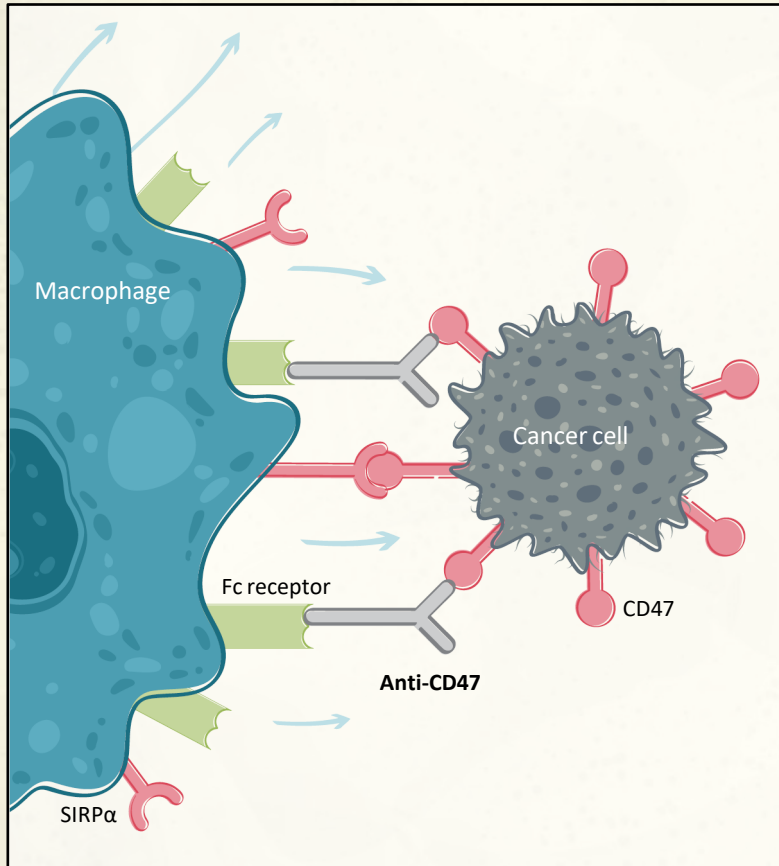


Checkpoint Mechanism: “do not eat me”

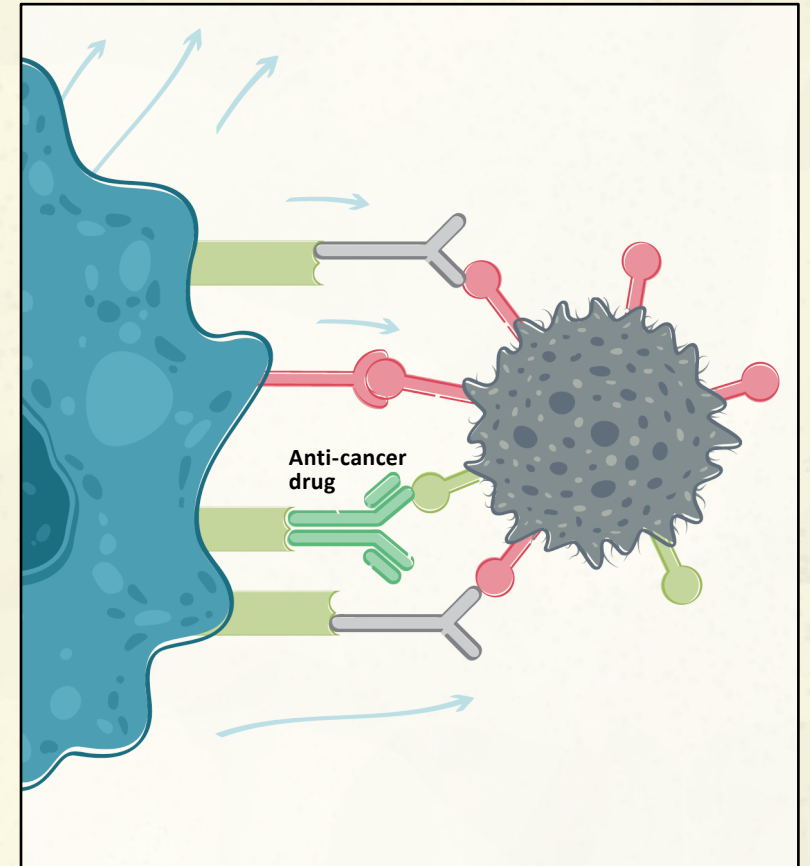
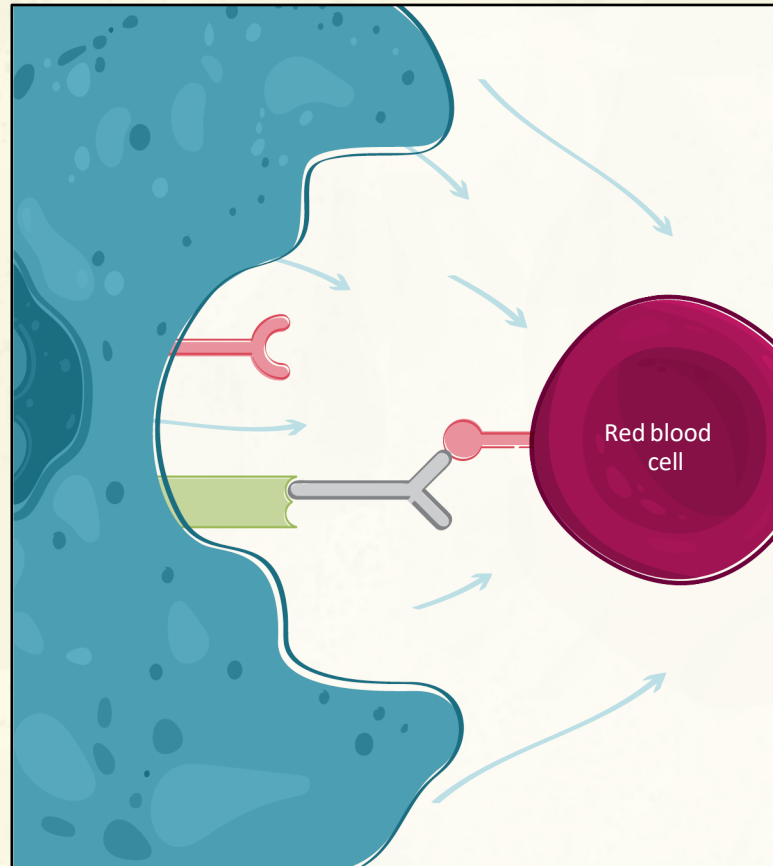


TARGETING CD47 AS TUMOR ASSOCIATED ANTIGEN

But also targets normal cells

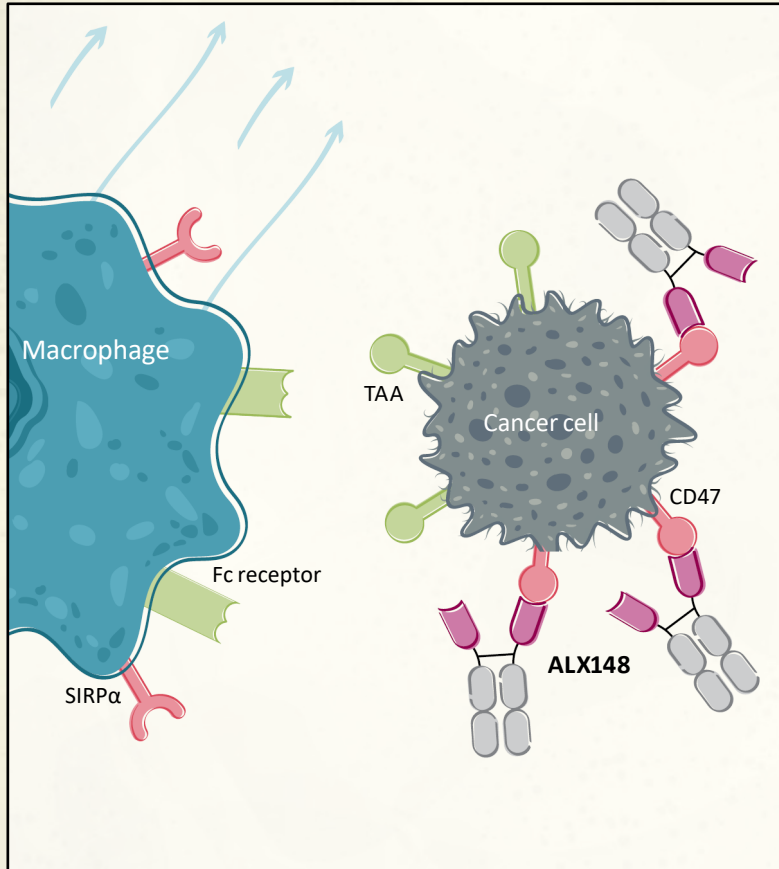


Anti CD47 with active Fc
directly targets cancer cells



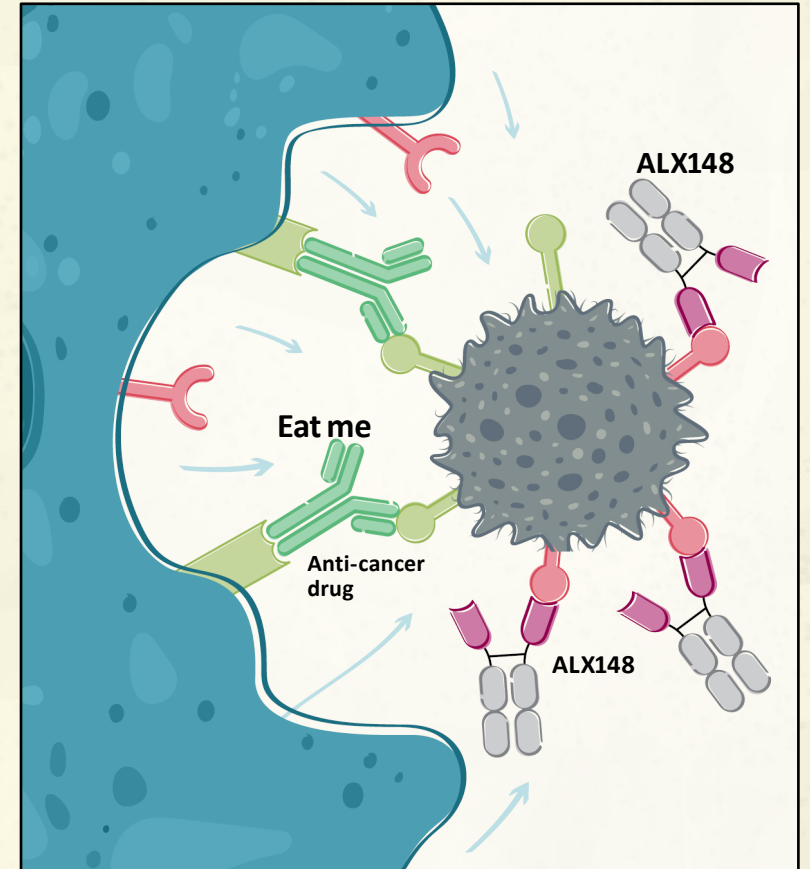
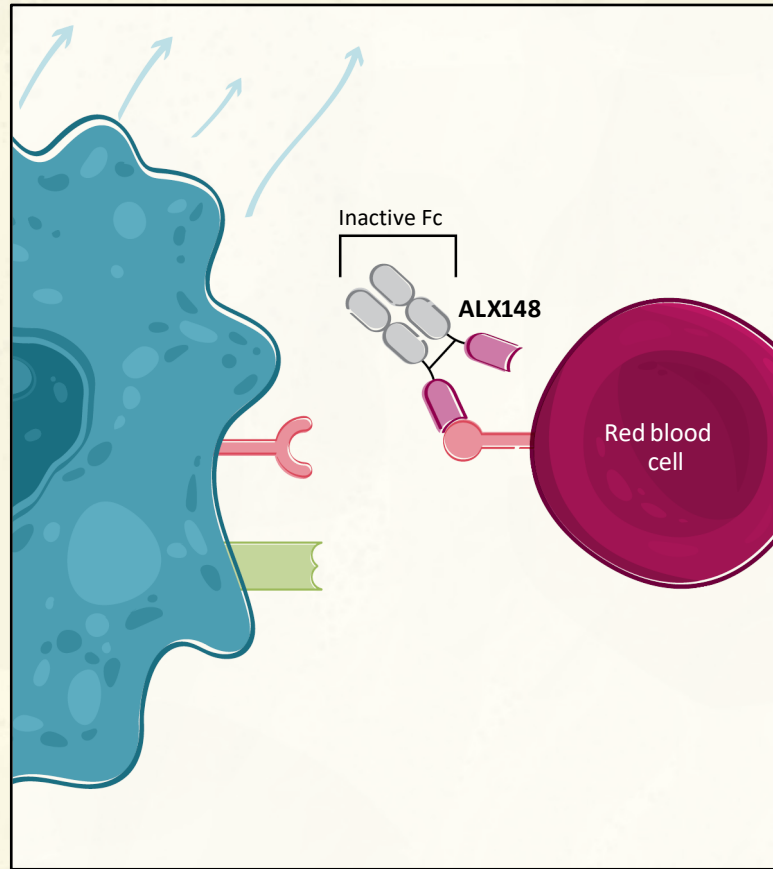
Dose limitations prevent full
blockade of CD47 and active
Fc competes with combo
drug

TARGETING CD47 AS CHECKPOINT: ALX ONCOLOGY'S APPROACH



Anti CD47 with inactive Fc binds and block CD47-SIRPα interaction

It spares normal cells



High dose allows full blockade of CD47 and maximizes activity of combo drug

ALX148: METICULOUSLY DESIGNED CD47 BLOCKER

High affinity CD47 binding domain of SIRP α



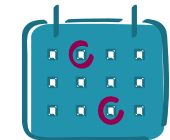
Potently blocks CD47 signal on cancer cells

Inactive Fc domain eliminates binding activity



No dose dependent cytopenia

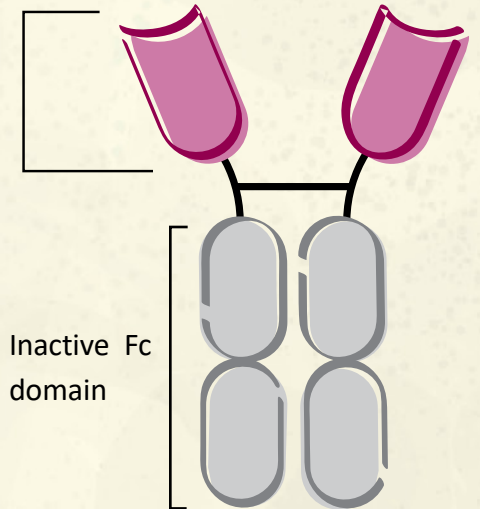
Presence of Fc domain ensures slow clearance and long half-life



Less frequent dosing

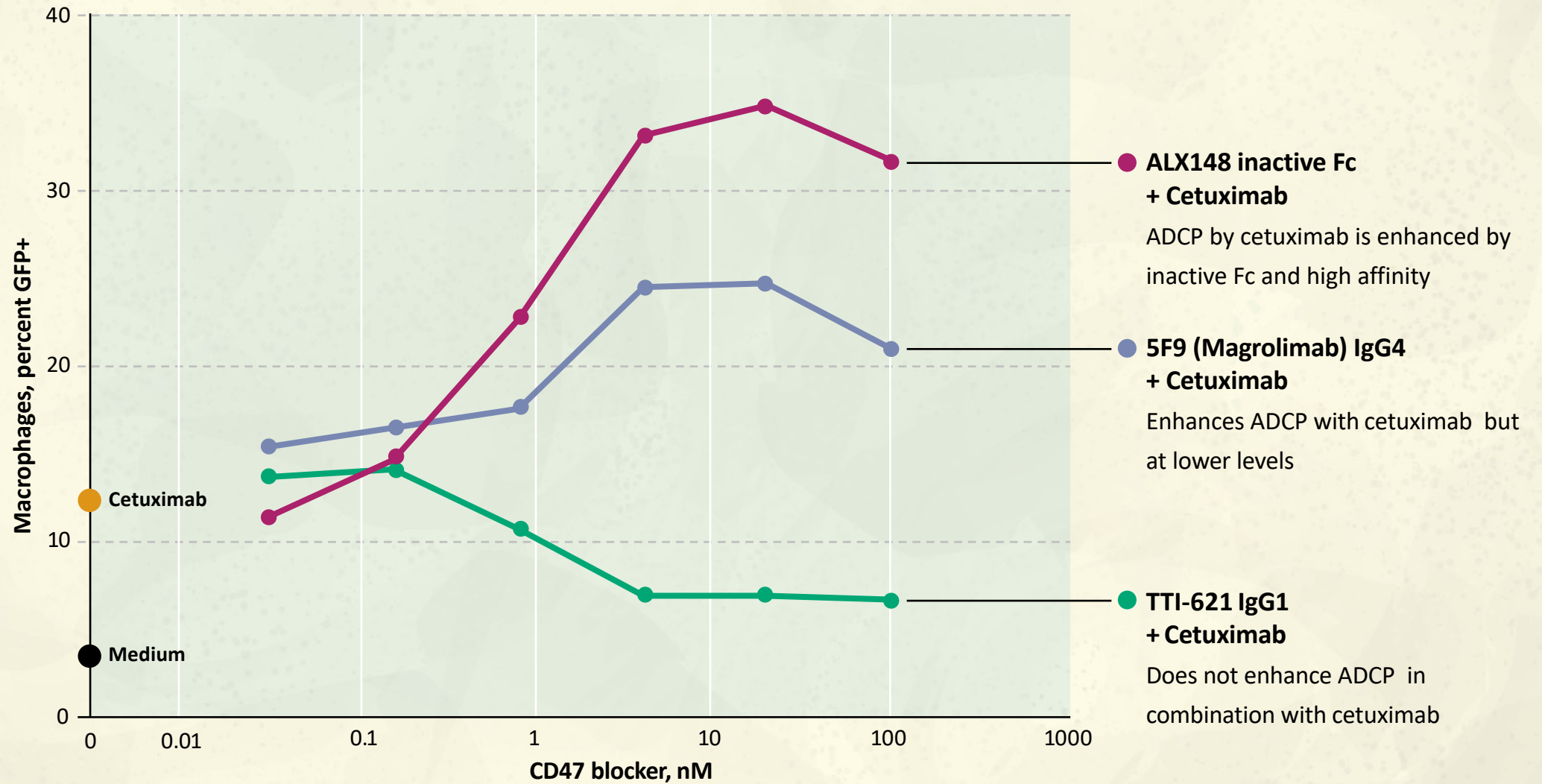
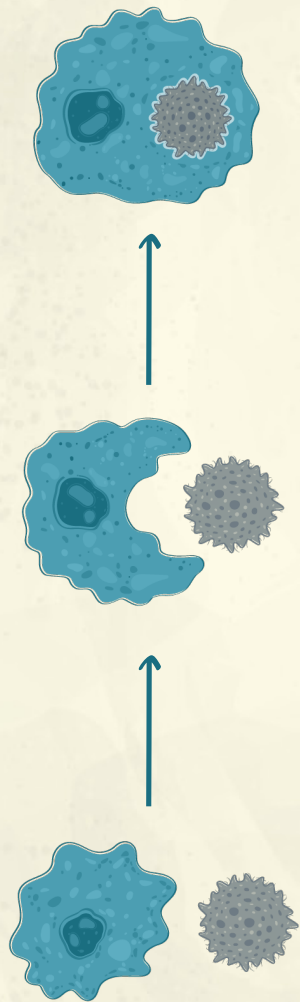
Designed for safety and efficacy

High affinity CD47 binding domains of SIRP α

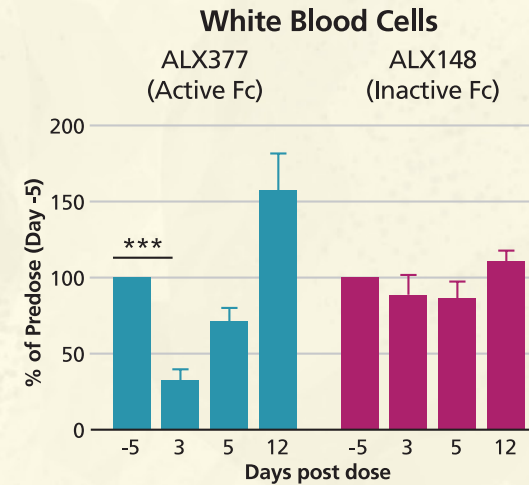
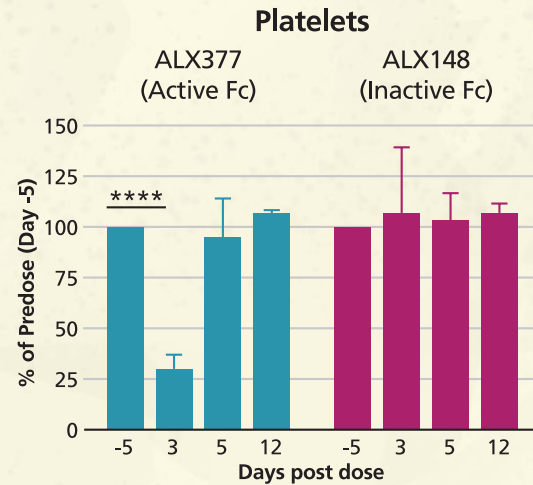
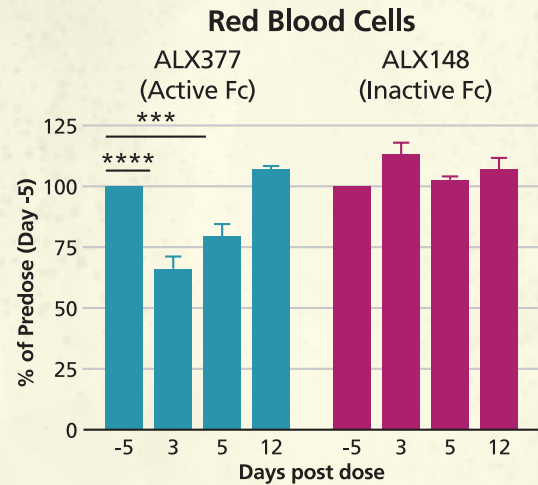


- ~Half the molecular weight of an antibody
- Increases solid tumor penetration
- Cross-reactive to human, monkey, mouse
- Standard antibody manufacturing process

ALX148 DEMONSTRATES SUPERIOR PHAGOCYTOSIS



INACTIVE FC SHOWS REDUCED CYTOPENIA IN MICE IN VITRO



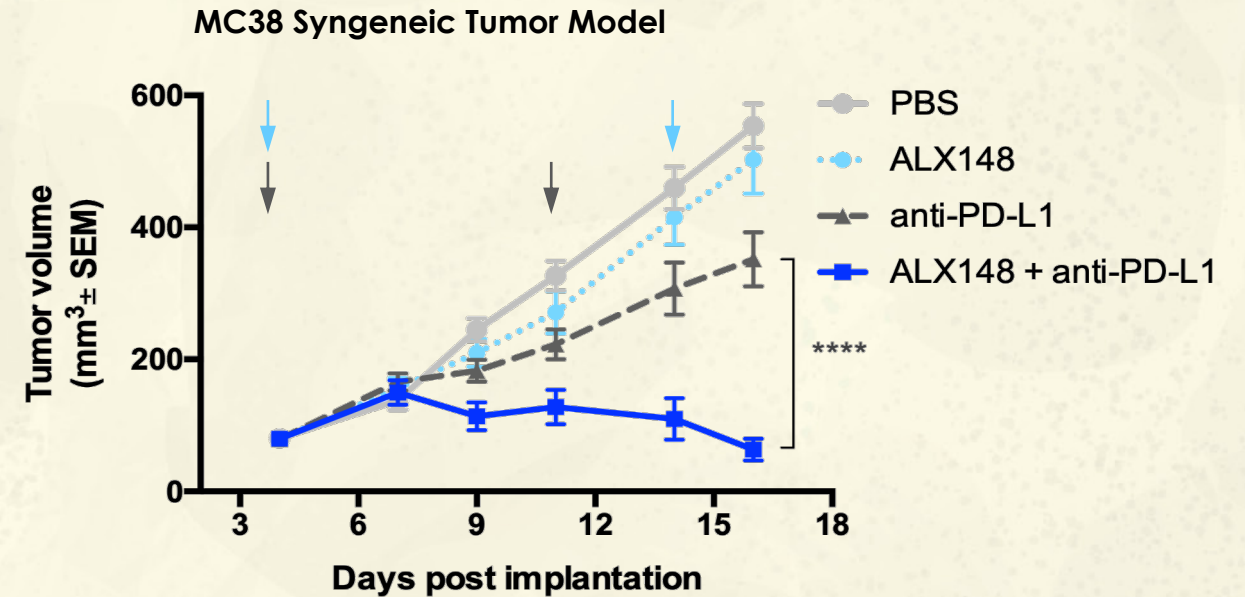
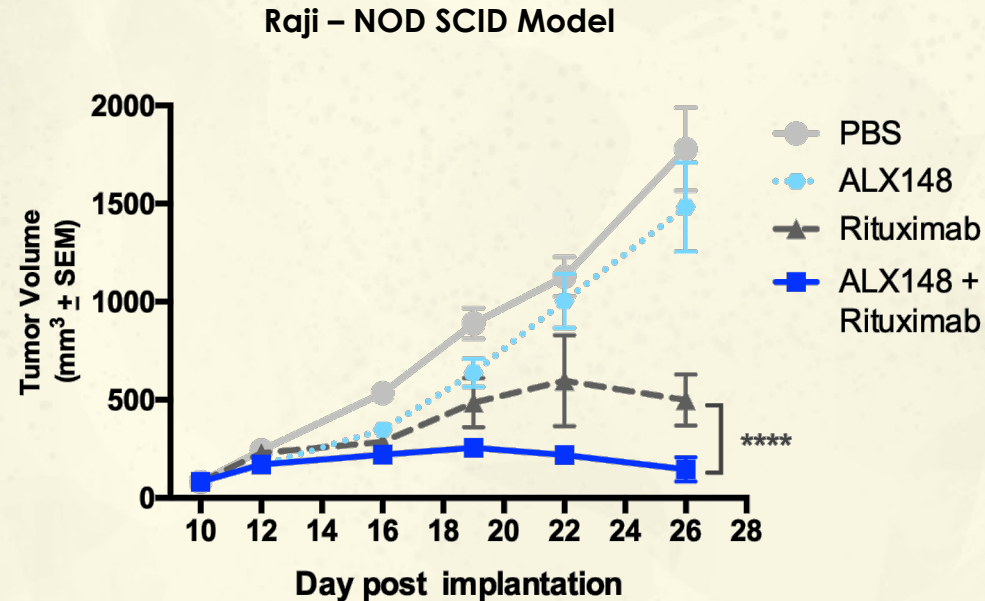
CD-1 mice received 30 mg/kg IV single dose

****p<0.0001, ***p<0.001

Mouse cross-reactivity allows for safety and efficacy testing in mouse models



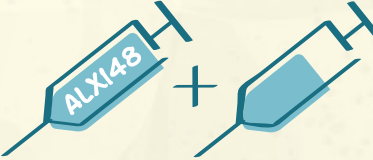
Inactive Fc is the core determinant of safety profile

COMBINATION EFFICACY WITH TAA (RITUXIMAB) ANTIBODIES AND CHECKPOINT INHIBITOR (ATEZOLIZUMAB)



Mouse cross-reactivity allows for better clinical translation of preclinical models: presence of CD47 sink and mouse models with intact immune system

ALX148 DEMONSTRATES FAVORABLE TOLERABILITY PROFILE

	 Preclinical	 Single agent	 Combinations
Highest administered dose	100 mg/kg¹ with no observable adverse events	30 mg/kg Q2W² No evidence of dose-dependent cytopenias	15 mg/kg QW currently dosed 60 mg/kg Q4W planned

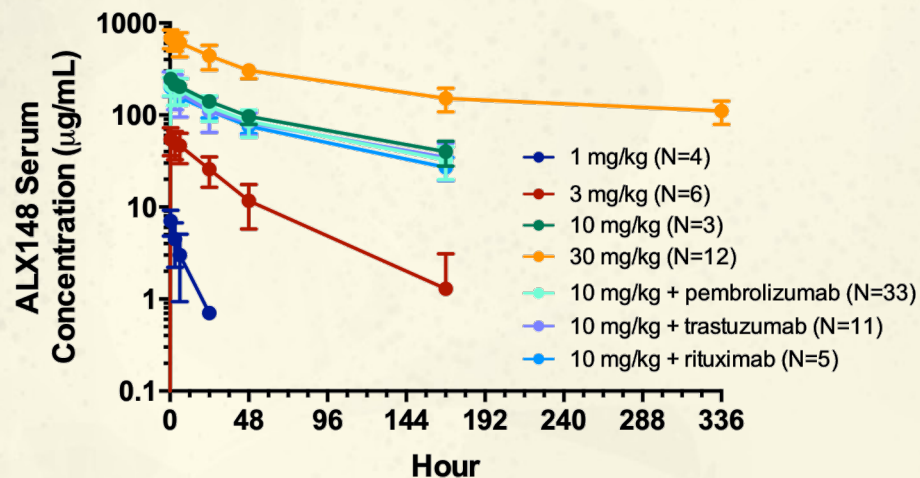
¹100 mg/kg of ALX148 \cong 200 mg/kg of a typical antibody

²Single agent safety, ALX presentation, ASCO 2018 poster

ALX148
has not yet reached a
maximum tolerated
dose

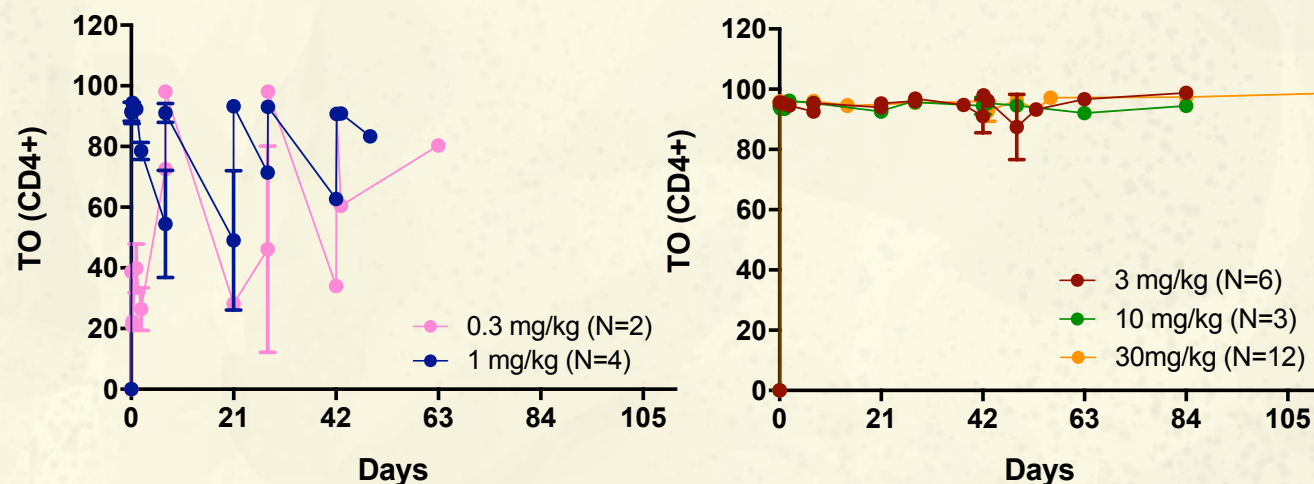
ALX148 CLINICAL PHARMACOKINETICS AND CD47 TARGET OCCUPANCY

ALX148 Serum Levels for Cycle 1 Day 1









- Steady-state half-life of ALX148 at 10 mg/kg QW is predicted to be ~30 days.
- ALX148 PK profile is not impacted by combination drugs.

CD47 Target Occupancy by ALX148



- Near complete CD47 target occupancy (TO) by ALX148 is maintained at ≥ 3 mg/kg QW across dosing interval
- 0.3 and 1 mg/kg QW show near complete target occupancy at peak, but not at trough

ALX PIPELINE

Indication		Combination Agent	Preclinical	IND stage	Phase 1	Phase 2	Phase 3	Fast Track	Collaboration Partner
ALX148 Combination Studies	SOLID TUMORS	HNSCC Head And Neck Squamous Cell Carcinoma	Keytruda						 MERCK
			Keytruda + 5FU + Platinum						 MERCK
		GC Gastric/Gastroesophageal Junction Cancer	Herceptin						
			Herceptin + Cyramza + paclitaxel						
		Breast Cancer	Zanidatamab						
	HEMATOLOGY	MDS Myelodysplastic Syndromes	Azacitidine						
		AML Acute Myeloid Leukemia	Azacitidine + Venclexta						
		NHL Non-Hodgkin's Lymphoma	Rituximab						
SIRPa-TRAAC*		Advanced Cancer							

*SIRPα Toll-like receptor agonist antibody conjugate (TRAAC)

ALX148 DEMONSTRATES CONSISTENT TOLERABILITY PROFILE

Treatment related adverse events*	ALX148 + Herceptin + Cyramza + chemo (N=14)		ALX148 + Herceptin (N=30)		ALX148 + Keytruda + chemo (N=5)		ALX148 + Keytruda (N=52)		ALX148 + Rituximab (N=33)	
	Total n (%)	≥Grade 3	Total n (%)	≥Grade 3	Total n (%)	≥Grade 3	Total n (%)	≥Grade 3	Total n (%)	≥Grade 3
Fatigue	2 (14.0%)	-	9 (30.0%)	-	-	-	6 (11.5%)	-	4 (12.1%)	-
Rash	3 (21.0%)	-	-	-	-	-	5 (9.6%)	-	8 (24.2%)	-
AST increased	-	-	-	-	-	-	9 (17.3%)	-	-	-
Platelets decreased	-	-	5 (16.7%)	2 (6.7%)	-	-	4 (7.7%)	2 (3.8%)	-	-
ALT increased	-	-	-	-	-	-	7 (13.5%)	1 (1.9%)	-	-
Pruritus	2 (14.0%)	-	3 (10.0%)	-	-	-	5 (9.6%)	-	2 (6.1%)	-
Pyrexia	-	-	3 (10.0%)	-	-	-	3 (5.8%)	-	-	-
Decreased appetite	-	-	3 (10.0%)	-	-	-	2 (3.8%)	-	-	-
Anemia	-	-	2 (6.7%)	-	-	-	5 (9.6%)	1 (1.9%)	2 (6.1%)	1 (3.0%)
Infusion reaction	-	-	-	-	-	-	4 (7.7%)	-	-	-
Neutropenia / Neutrophil count decr	-	-	2 (6.7%)	2 (6.7%)	-	-	2 (3.8%)	1 (1.9%)	2 (6.1%)	2 (6.1%)
Nausea	-	-	2 (6.7%)	-	-	-	2 (3.8%)	-	2 (6.1%)	-
Alkaline phosphatase incr	-	-	-	-	-	-	3 (5.8%)	-	-	-
Arthralgia	-	-	-	-	-	-	3 (5.8%)	-	-	-
WBC decreased	-	-	-	-	-	-	3 (5.8%)	-	-	-
Myalgia	-	-	-	-	-	-	2 (3.8%)	-	2 (6.1%)	-
Diarrhea	3 (21.0%)	-	-	-	-	-	-	-	-	-
Urticaria	3 (21.0%)	-	-	-	-	-	-	-	-	-

Treatment related adverse events occurring in ≥2 subjects in all histologies at 10 & 15 mg/kg QW.

*Data cut off: April 1, 2020 for combination cohorts of ALX148 plus Keytruda and Herceptin; October 1, 2020 for combination cohorts of ALX148 plus Rituxan, Keytruda and chemotherapy (5FU, platinum) and Herceptin and chemotherapy (Cyramza, paclitaxel).

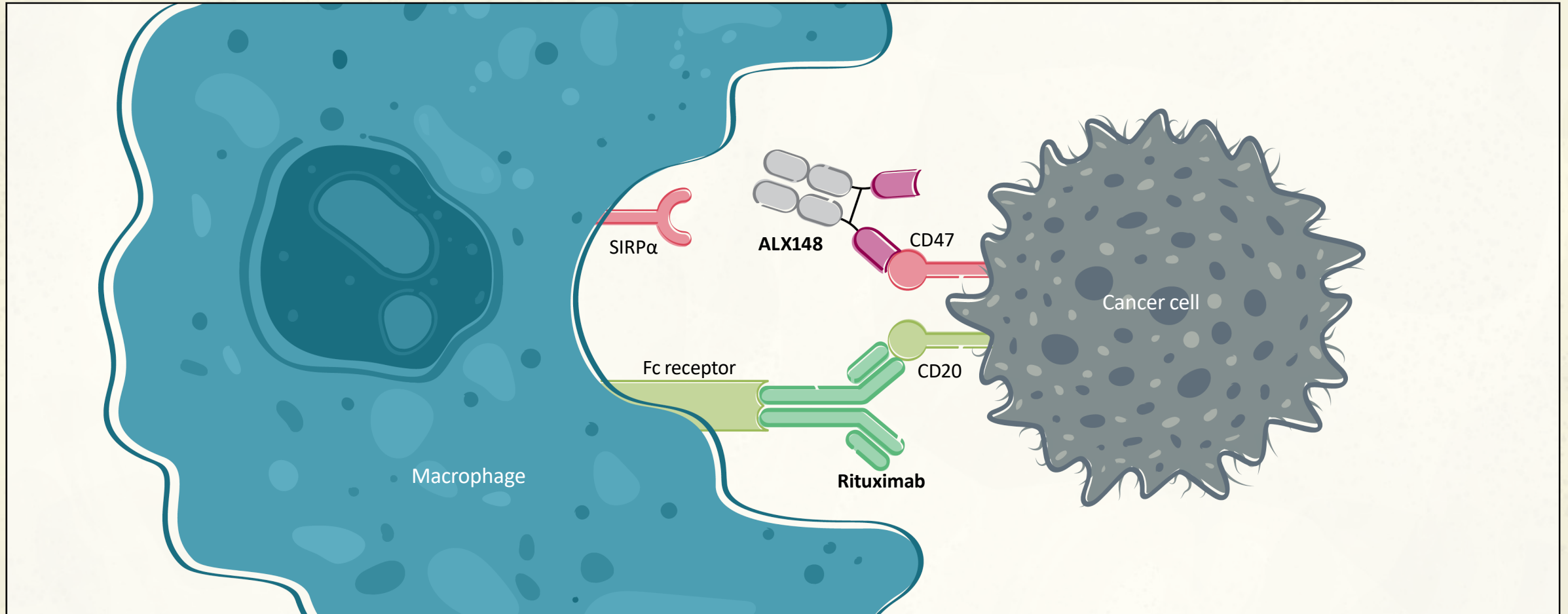
ALX148 HAS INITIAL CLINICAL ACTIVITY ACROSS TUMOR TYPES IN MULTIPLE TRIALS

Population	≥2L HER2+ GC		≥2L HER2+ GC	1L HNSCC		≥2L HNSCC (CPI-Naïve)		≥2L NHL (15mg/kg)
Combination	ALX148 + Herceptin + Cyramza + paclitaxel		ALX148 + Herceptin	ALX148 + Keytruda + 5FU + platinum		ALX148 + Keytruda		ALX148 + Rituximab
N-evaluable	14		19	4		10		10
ORR								
	ALX148 64%	Benchmark 28%	21%	ALX148 75%	Benchmark 36%	ALX148 40%	Benchmark 15%	70%
mPFS (months)	NC	4.4	2.2	NC	4.9	4.6	2.1	NC
mOS (months)	NC	9.6	8.1	NC	13.0	22.1	8.4	NC
Benchmark regimen	Cyramza + paclitaxel			Keytruda + 5FU + platinum		Single agent Keytruda		

Data as of October 1, 2020. NC = unable to be calculated, ORR = Objective Response Rate, mPFS = median progression free survival, mOS = median overall survival. CPI = checkpoint inhibitor. 2L GC benchmark, Wilke, Lancet Oncology, 2014; 2L HNSCC benchmark, Cohen, Lancet, 2018; 1L HNSCC benchmark, Burtness, Lancet, 2019.

NHL TRIAL: ALX148 + RITUXIMAB MECHANISM OF ACTION

ALX148
in
NHL



ALX148 increases antibody dependent cellular phagocytosis in combination with Rituximab

NHL PROOF-OF-PRINCIPLE TRIAL

ALX148
in
NHL

Phase 1b NHL cohorts



Relapsed/Refractory NHL,
prior regimen with Rituximab



Treatment:

ALX148 10 or 15 mg/kg once
a week (QW)
+
Rituximab 375 mg/m² once a week
for 4 weeks, once monthly
for 8 months

		ALX148 10 mg/kg QW + Rituximab (n=22)	ALX148 15 mg/kg QW + Rituximab (n=11)
Primary Disease, n	Follicular	5	3
	Marginal Zone (MZL)	2	1
	Mantle Cell (MCL)	4	1
	DLBCL	11	6
Median Age, Years (range)		66 (32-80)	64 (53-78)
Sex, n	M	17	6
	F	5	5
Race, n	Asian	18	9
	White	4	2
ECOG, PS, n	0	7	2
	1	15	9
Median Prior Therapy, n (range)		3 (1-7)	3 (1-5)

Data Cutoff October 1, 2020

NHL PROOF-OF-PRINCIPLE TRIAL

ALX148
in
NHL

Population	10 mg/kg QW		15 mg/kg QW	
	N	ORR	N	ORR
All	22	40.9%	10	70.0%
Aggressive	15	33.3%	6	50.0%
Indolent	7	57.1%	4	100.0%

Data Cutoff: October 1, 2020; ASH 2020 Abstract 3016

N = Response Evaluable Patients

Indolent = Follicular Lymphoma and Marginal Zone Lymphoma.

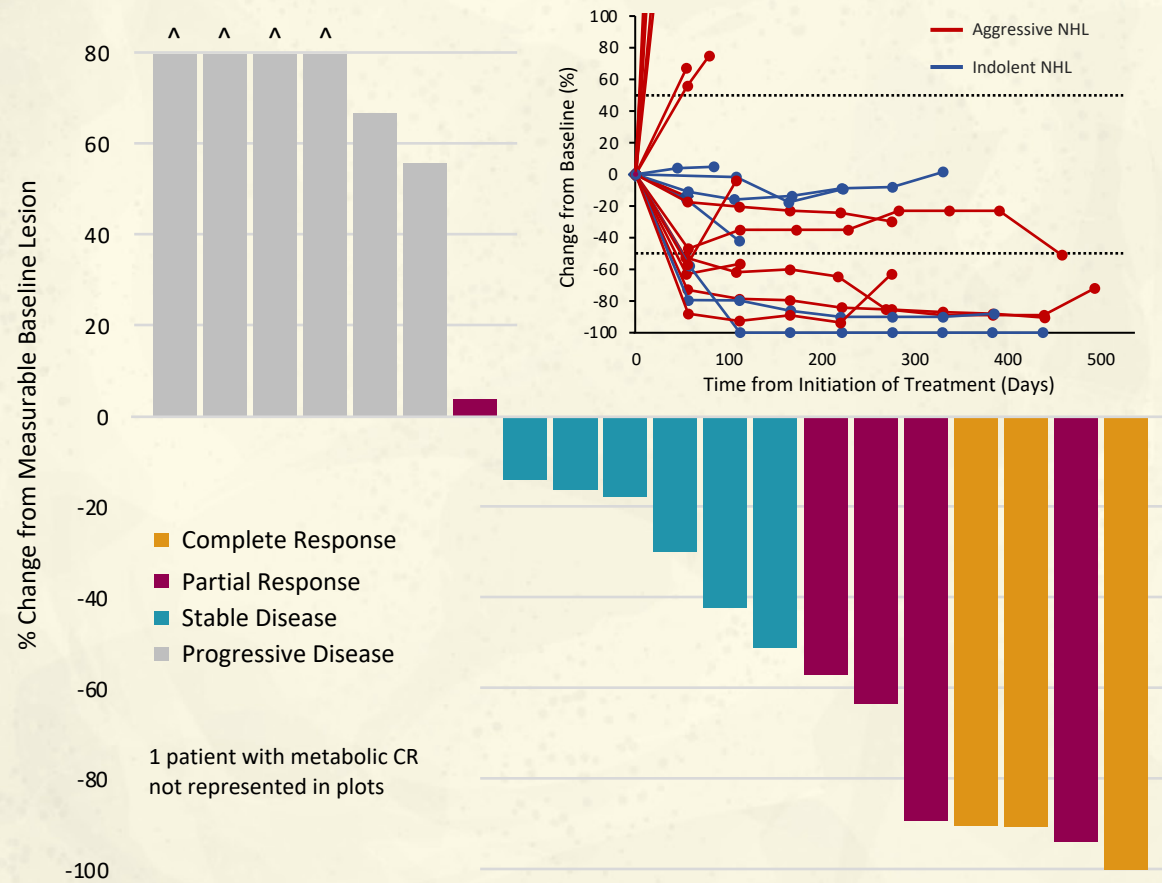
Aggressive = Diffuse Large B-cell Lymphoma and Mantle Cell Lymphoma.

ORR = Objective Response Rate.

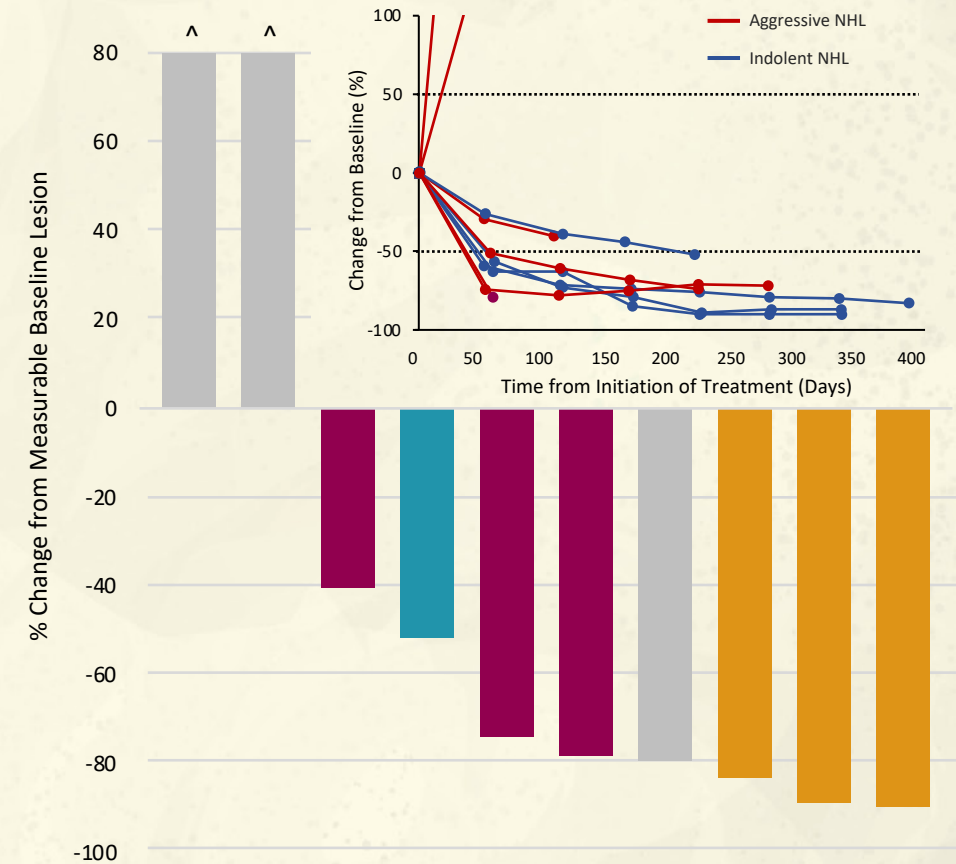
ALX148
demonstrated higher
response rate
at higher dosing

NHL: CLINICAL ACTIVITY OF ALX148 + RITUXIMAB BY PATIENT

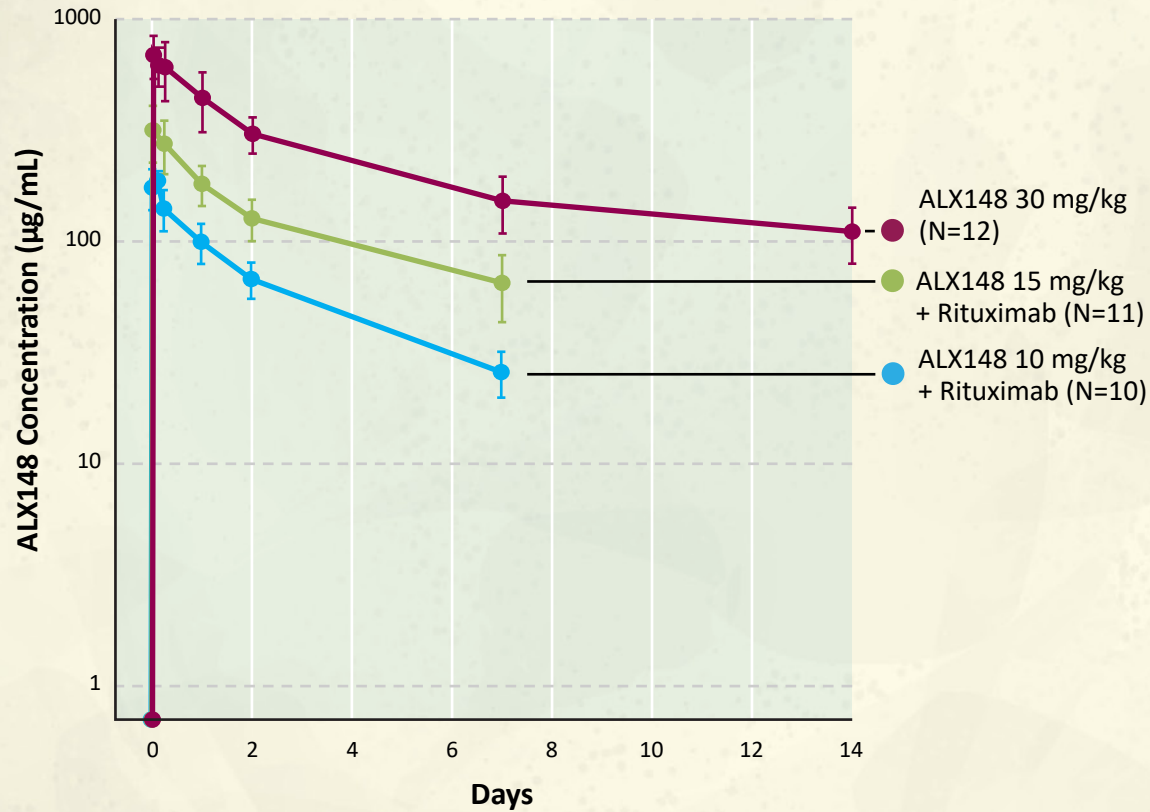
ALX148 (10 mg/kg QW)* + Rituximab



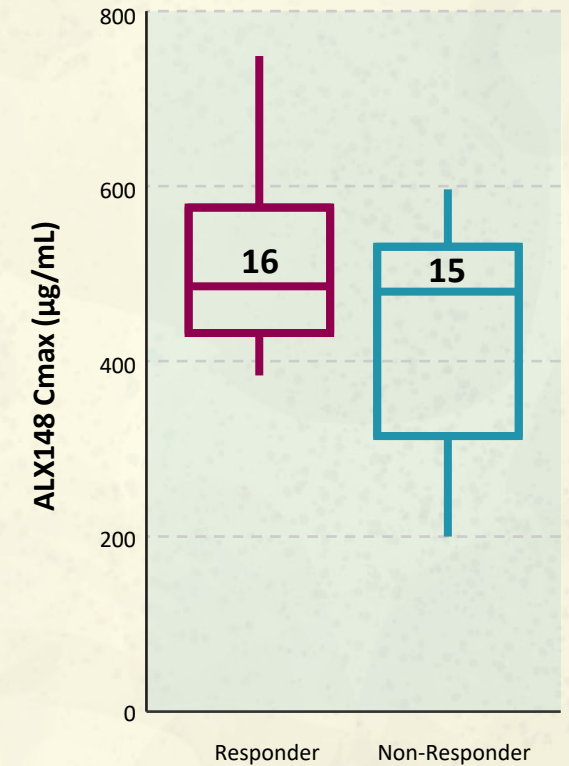
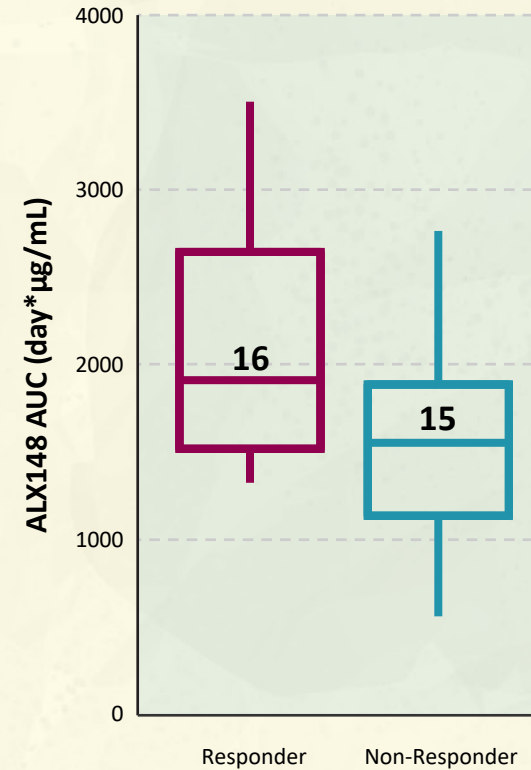
ALX148 (15 mg/kg QW) + Rituximab



NHL: ALX148 CLINICAL PHARMACOKINETICS AND EXPOSURE-RESPONSE ANALYSIS



ALX148 concentration-time profiles following first IV infusion at Cycle 1 Day 1 as single agent or in combination with Rituximab.



*A significant improvement in patients with clinical response (PR,CR) with increased ALX148 exposure (AUC; $p = 0.023$) was observed across the exposure range evaluated (10 mg/kg QW - 15 mg/kg QW).

NON-HODGKIN LYMPHOMA PROOF-OF-PRINCIPLE SUMMARY

ALX148
in
NHL



Other agents in CD47 class
reduced dosing leading to reduced
responses



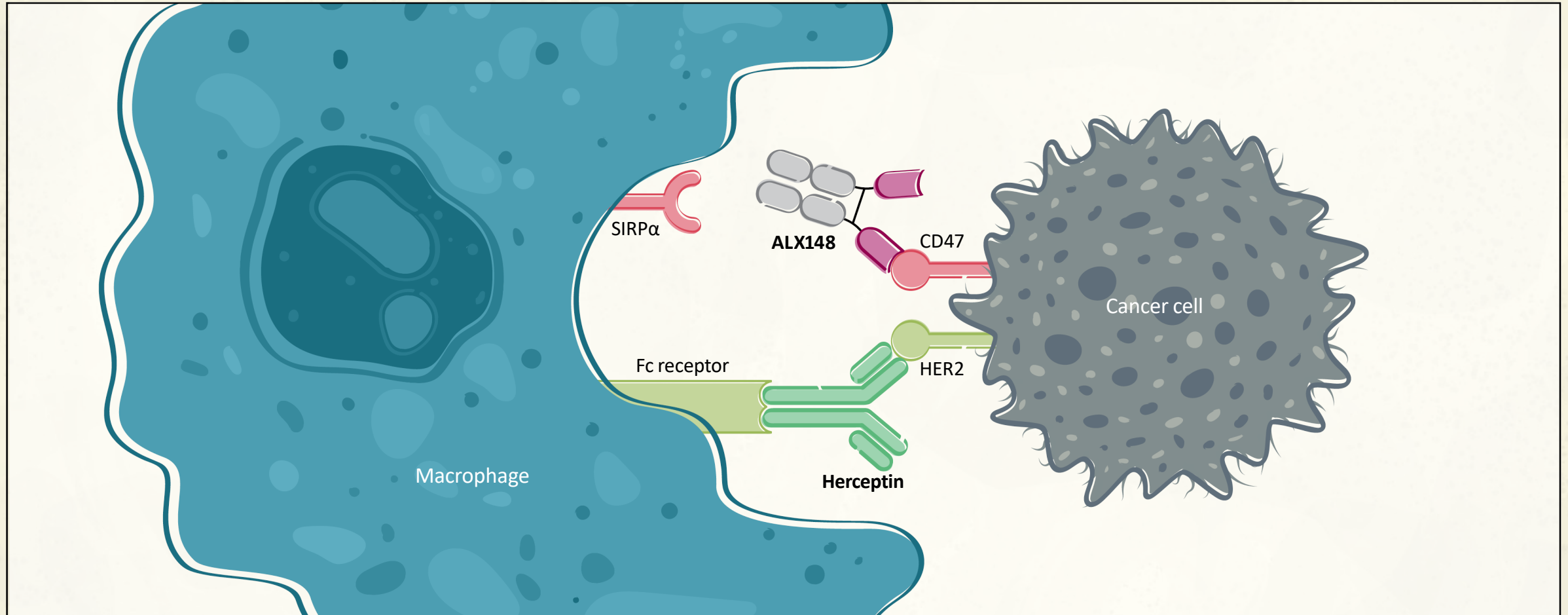
Higher dosing enabled by
ALX148 tolerability profile



Higher dosing of ALX148
led to higher responses

GC TRIAL: ALX148 + HERCEPTIN MECHANISM OF ACTION

ALX148
in
GASTRIC



ALX148 increases antibody dependent cellular phagocytosis in combination with Herceptin

PHASE 1B GC TRIALS: PATIENT BASELINE CHARACTERISTICS

		ALX148 + Herceptin ≥2L GC (N=20)	ALX148 + Herceptin + Cyramza/chemo ≥2L GC (N=14)
Median age, years (range)		58 (45-79)	63 (36-83)
Sex, n	M	15	10
	F	5	4
Race, n	Asian	13	11
	White	6	3
	Other	1	-
ECOG PS, n	0	7	5
	1	13	9
Progressed upon prior anti-HER2 therapy, n (%)		19 (95)	13 (93)
Progressed upon ≥2 prior anti-HER2 therapy n (%)		9 (45)	1 (7.1)
Progressed upon prior CPI therapy, n (%)		9 (45)	1 (7.1)
Visceral distant metastasis, n (%)		17 (85)	13 (93)

PHASE 1B ≥2 LINE GC TRIAL: ALX148 + HERCEPTIN

Phase 1b GC trial:

 Response
evaluable patients

N=19 HER2 positive GC

Progressed on prior fluoropyrimidine,
Herceptin or platinum.

 Treatment:

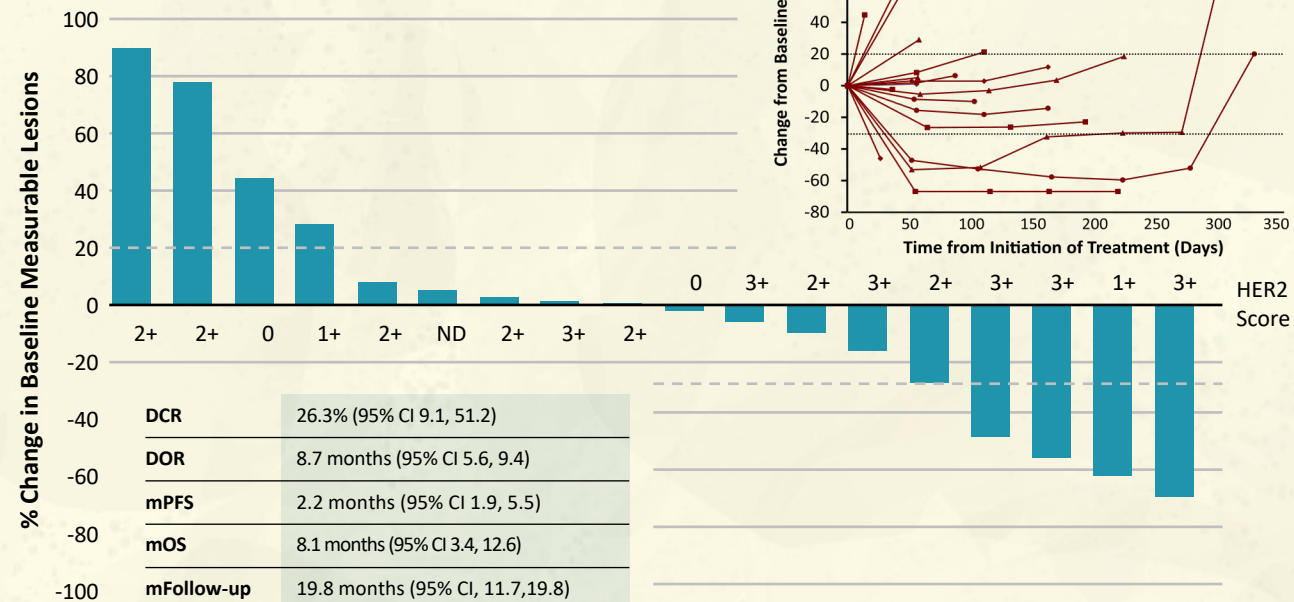
ALX148 10 mg/kg once a week (QW)
+ **Herceptin**
8 mg/kg once, then
6 mg/kg every three weeks (Q3W)

 Endpoints:

- maximum tolerated dose
- anti-cancer activity

Result:

ORR 21.1% (4/19)



Notes: Data Cutoff October 1, 2020. Patients who received at least one dose of ALX148 in the expansion phase, had a baseline assessment, and at least one post-baseline disease assessment; One patient with clinical progression not included in plots.
ORR = Overall Response Rate. **ND** = Not Done. **HER2** Score retrospectively assessed using archival tissue by a central IHC lab.

FDA granted ALX148 fast track designation for second-line treatment of HER2 positive GC

PHASE 1B ≥2 LINE GC TRIAL: ALX148 + HERCEPTIN + CYRAMZA + PACLITAXEL

Phase 1b higher dose + chemo trial:



Patients:

R/R HER2 positive GC, 2L or greater; Progressed on prior Herceptin and fluoropyrimidine or platinum.



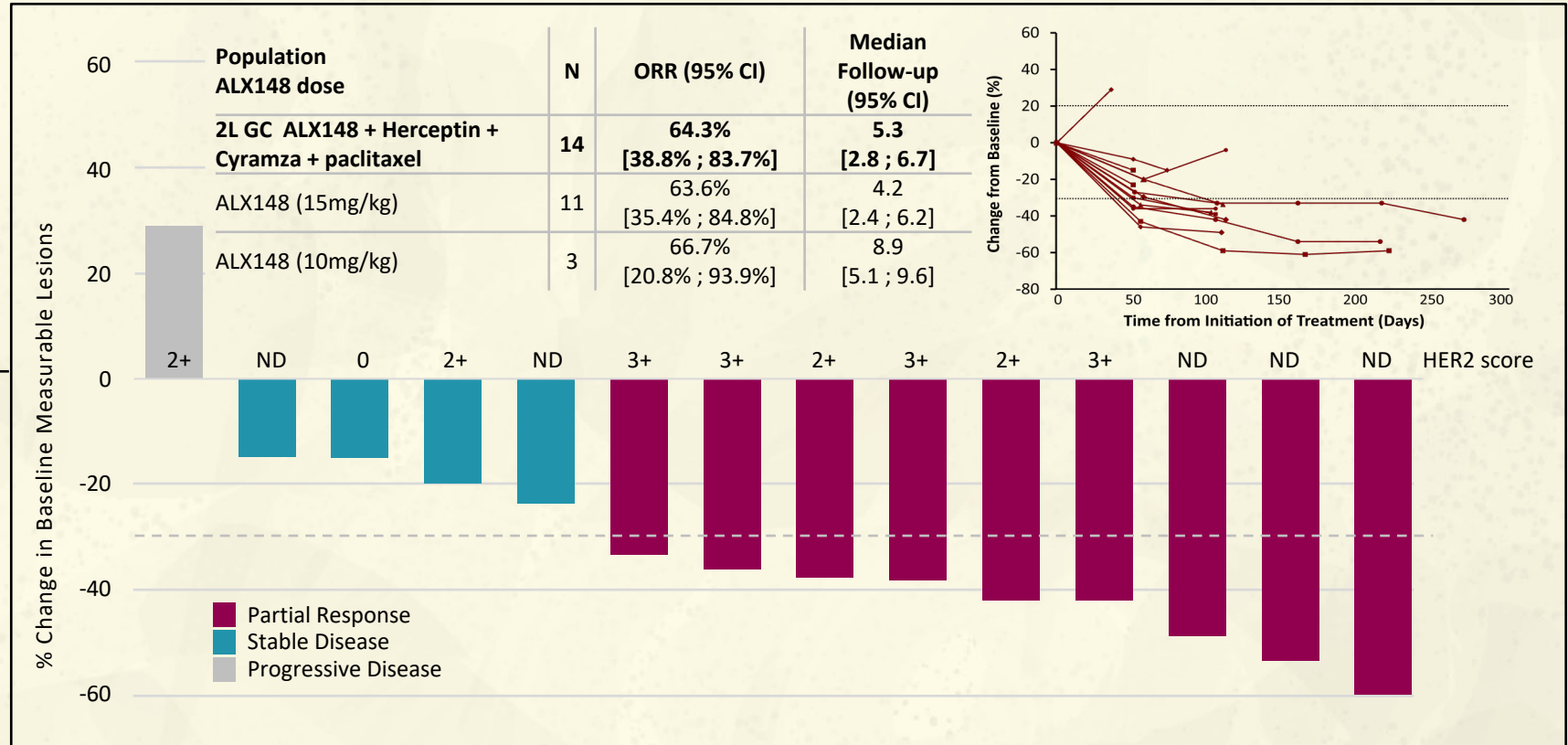
Treatment:

ALX148 10 and 15 mg/kg (QW)
+ **Herceptin**
+ **Cyramza**
+ **Paclitaxel**



Endpoint:

- safety of combination
- anti-cancer activity



Data Cutoff October 1, 2020. ND = Not Done

SECOND LINE GASTRIC CANCER: PLANNED RANDOMIZED PHASE 2 CLINICAL TRIAL

Randomized Planned Phase 2:



Patients:

2L or greater HER2 positive GC
with prior HER2 targeted therapy



ALX148 Treatment Arm

ALX148

+ Herceptin

+ Cyramza

+ Paclitaxel

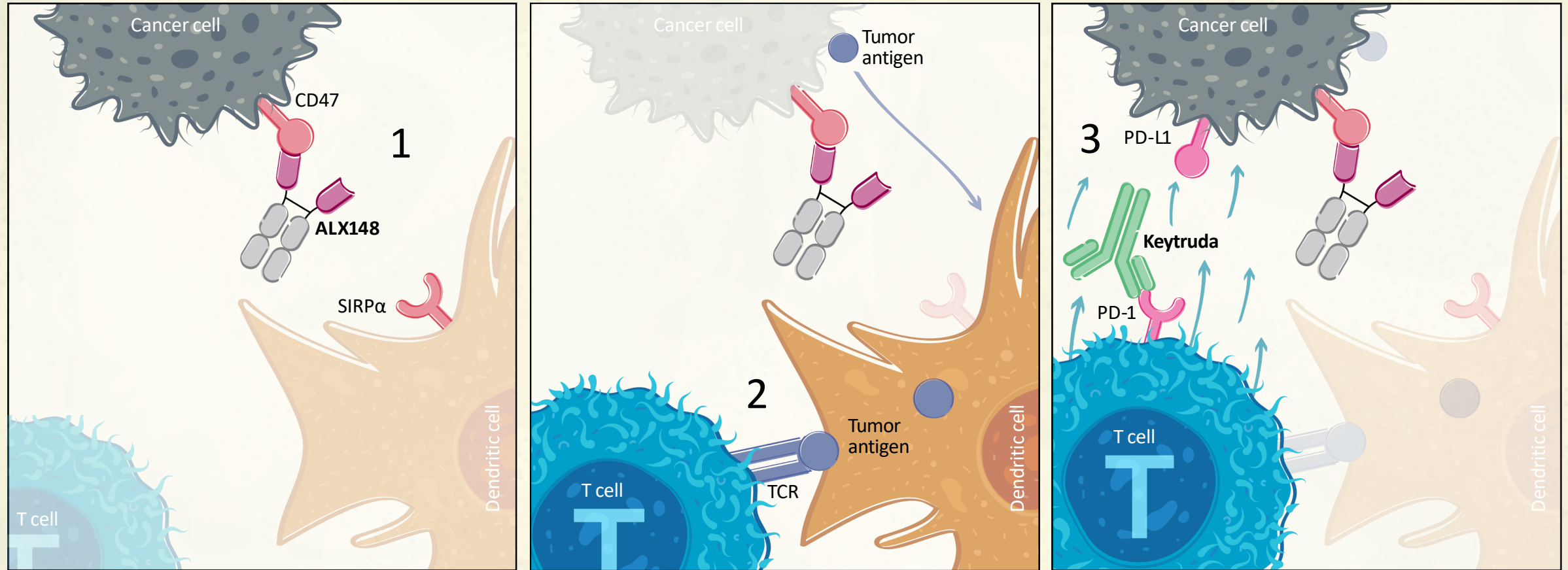


Endpoint:

- Anticancer activity: including ORR, DOR, PFS, OS

HNSCC TRIAL: ALX148 + KEYTRUDA MECHANISM OF ACTION

ALX148
in
HNSCC



ALX148 activates dendritic cells and enhances cross-priming of T cells

HNSCC STANDARD OF CARE & OPPORTUNITY

	ORR	mPFS (months)	mOS (months)	≥Gr3 TRAEs
Keytruda + chemo¹ (KEYNOTE 048)	36%	4.9	13.0	72%²
Keytruda monotherapy (KEYNOTE 048)	17%	2.3	11.5	17%
Keytruda monotherapy (KEYNOTE 040)	15%	2.1	8.4	13%

- Keytruda monotherapy ORR of 15% in ≥2L CPI naïve HNSCC
- Significant unmet need
- Increasing use of Keytruda monotherapy³
- Keytruda 2020 WW Sales \$14.4B⁴

¹5FU + cisplatin or carboplatin.

²83% occurrence in chemo control arm.

³Wiley 2019, Real-world treatment patterns for patients with metastatic head and neck squamous cell carcinoma treated with immuno-oncology therapy.

⁴Merck 10-K February 25, 2021

HNSCC TRIALS: PATIENT BASELINE CHARACTERISTICS

		ALX148 + Keytruda ≥2L HNSCC (N=20)	ALX148 + Keytruda + 5FU/platinum 1L HNSCC (N=5)
Median age, years (range)		62.5 (35-81)	61 (45-63)
Sex, n	M	15	4
	F	5	1
Race, n	Asian	6	4
	White	12	1
	Other	2	-
ECOG PS, n	0	7	4
	1	13	1
Progressed upon prior CPI therapy, n (%)		10 (50)	0 (0)
Visceral distant metastasis, n (%)		12 (60)	1 (20)

PHASE 1B ≥2 LINE HNSCC TRIAL: ALX148 + KEYTRUDA

Phase 1b ≥2L HNSCC trial:

 Response evaluable patients

N=20: recurrent/metastatic HNSCC, at least one prior systemic therapy

 Treatment:

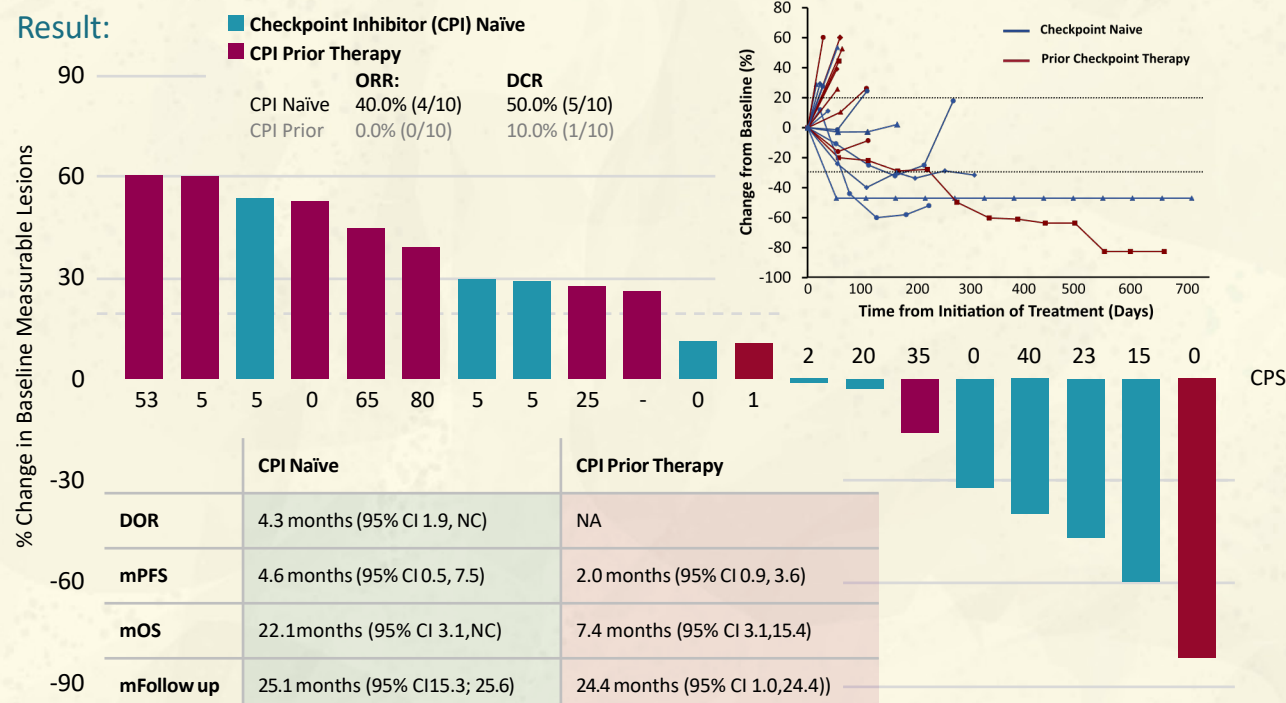
ALX148 10 mg/kg once a week (QW)
+

Keytruda
200 mg every three weeks (Q3W)

 Endpoints:

- maximum tolerated dose
- anti-cancer activity

Result:




Notes: Data Cutoff October 1, 2020. Patients who received at least one dose of ALX148 in the expansion phase, had a baseline assessment, and at least one post-baseline disease assessment.

ORR = Overall Response Rate. **DCR** = Disease Control Rate. **CPS** = Combined Positive Score.

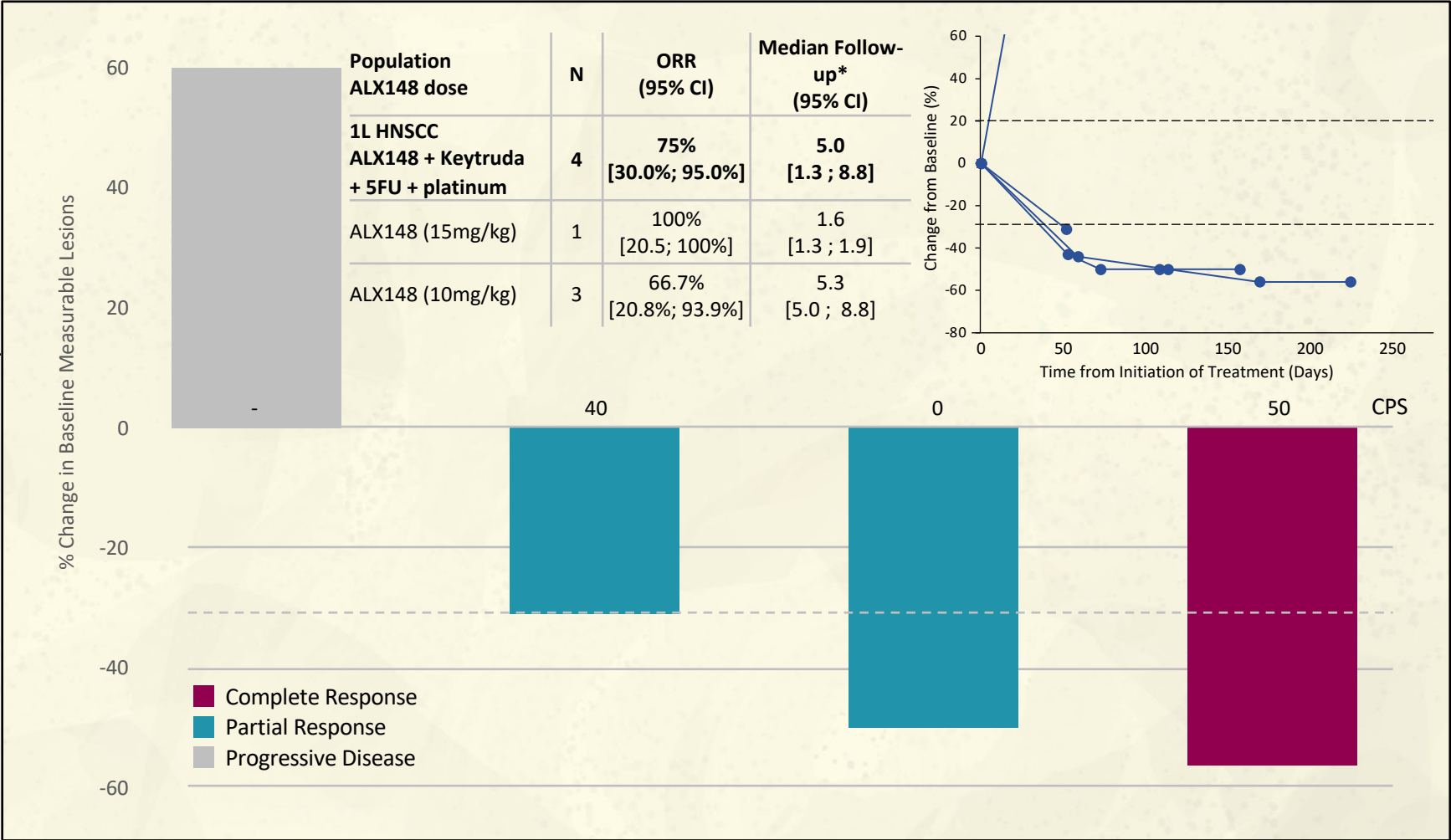
PHASE 1B HNSCC: ALX148 + KEYTRUDA + 5FU/PLATINUM FIRST LINE CHECKPOINT NAIVE

Phase 1b ≥1L HNSCC dose confirmation:

Treatment:

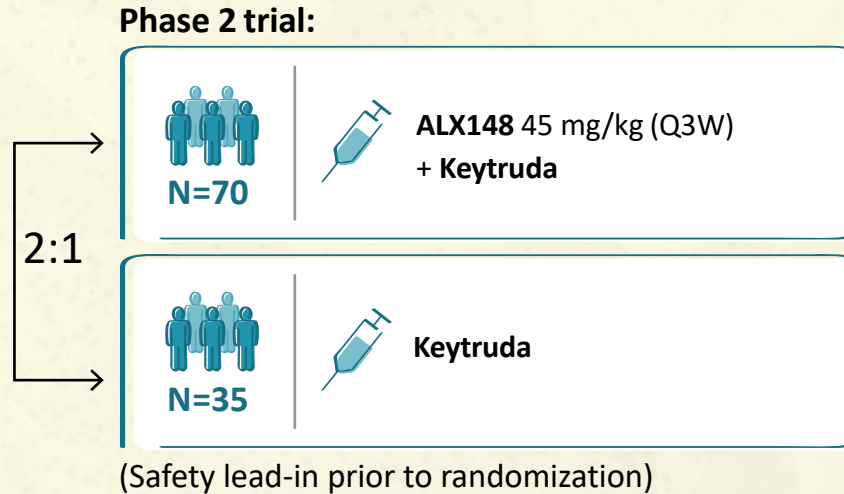
ALX148 10 & 15 mg/kg (QW)
+ Keytruda
+ 5FU
+ Cisplatin or carboplatin

**No prior treatment
for advanced disease**



FIRST LINE HEAD & NECK CANCER: PHASE 2 DEVELOPMENT PLAN

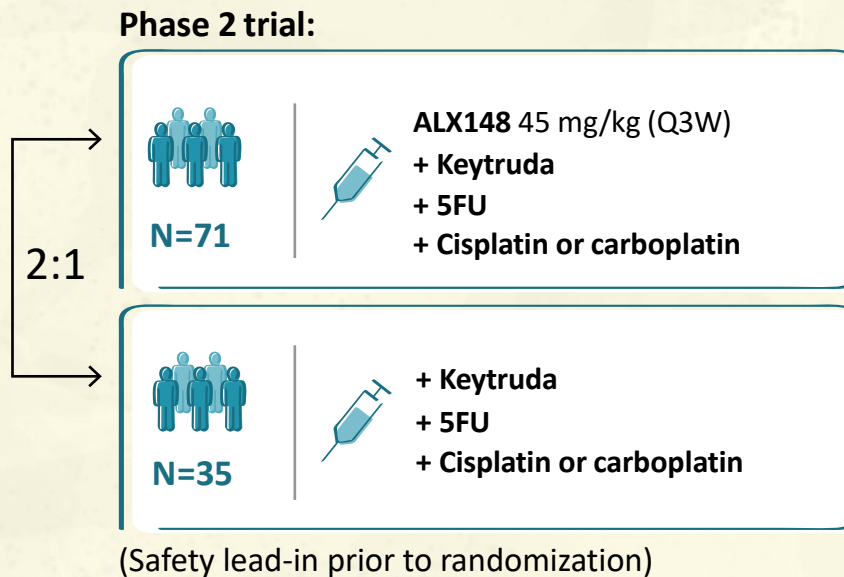
ALX148
+
Keytruda



Endpoint:

- ORR (from benchmark of 17% to goal of 33%)

ALX148
+
Keytruda
+
Chemo

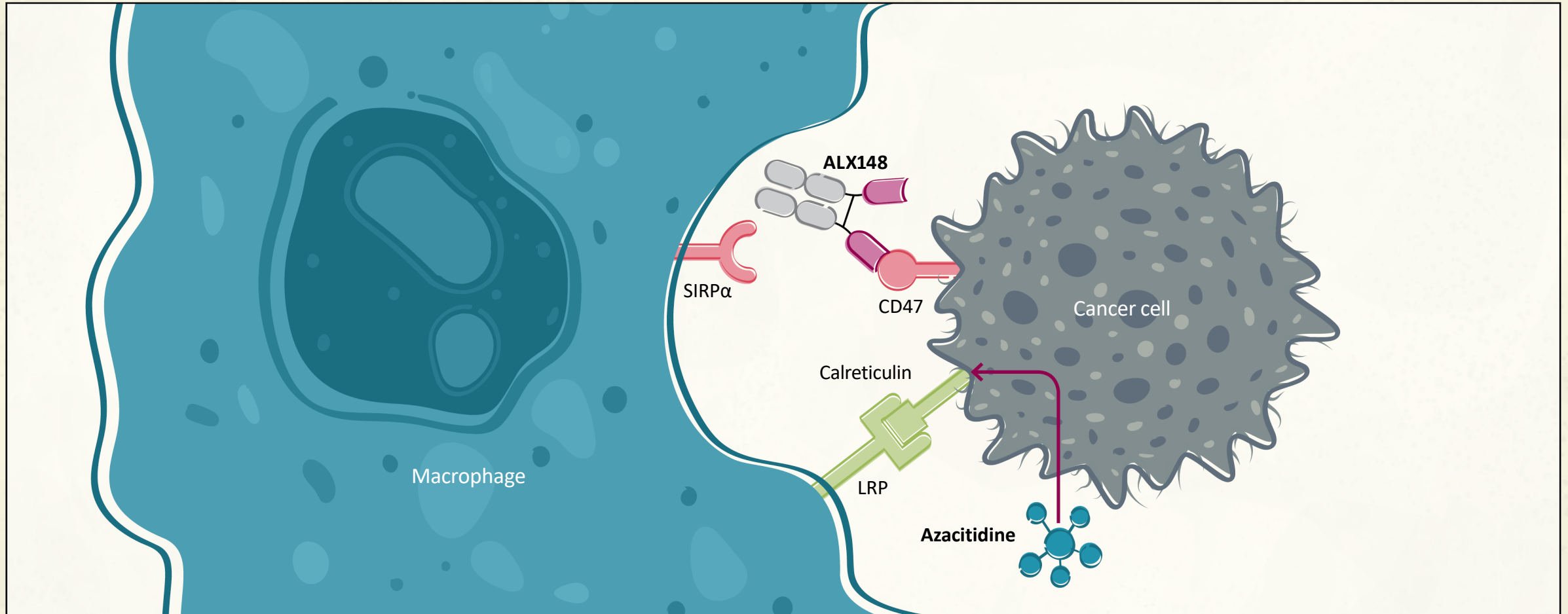


Endpoint:

- ORR (from benchmark of 36% to goal of 54%)

MDS TRIAL: ALX148 + AZACITIDINE MECHANISM OF ACTION

ALX148
in
MDS



ALX148 increases pro-phagocytic signal provided by azacitidine

CD47 BLOCKADE IS CLINICALLY VALIDATED WITH SIGNIFICANT OPPORTUNITY TO IMPROVE ON MAGROLIMAB

Best Overall Response	1L MDS N=33
ORR	30 (91%)
CR	➡ 14 (42%)
CRi	NA
PR	1 (3%)
MLFS/marrow CR	8 (24%) 4 with marrow CR + HI
Hematologic improvement (HI)	7 (21%)
SD	3 (9%)
PD	0

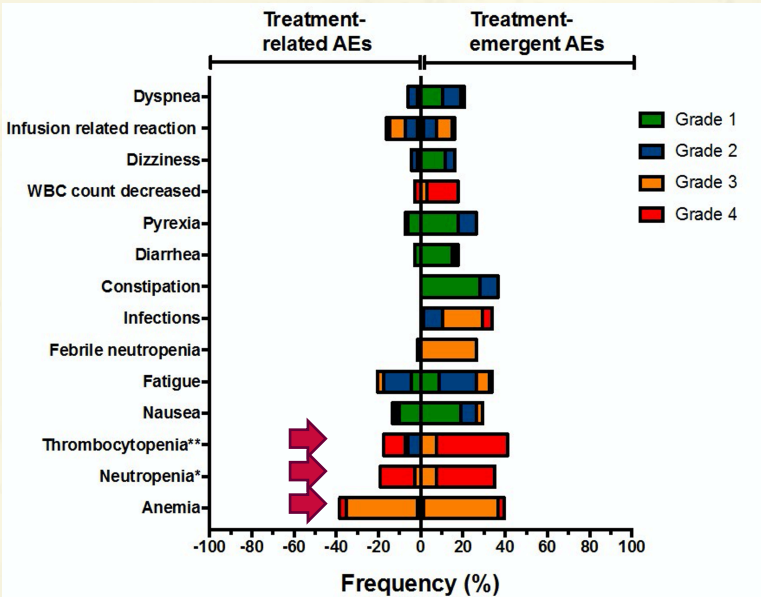
Magrolimab with azacitidine

Sallman, ASCO 2020

Best Overall Response	R/R AML/MDS 5F9 mono N=10
ORR	1 (10%)
CR	➡ 0
CRi	0
PR	0
MLFS/marrow CR	1 (10%)
HI	-
SD	7(70%)
PD	2 (20%)

Magrolimab monotherapy

Sallman, ASCO 2019



All grade TRAEs: 38% Anemia
19% Neutropenia
18% Thrombocytopenia

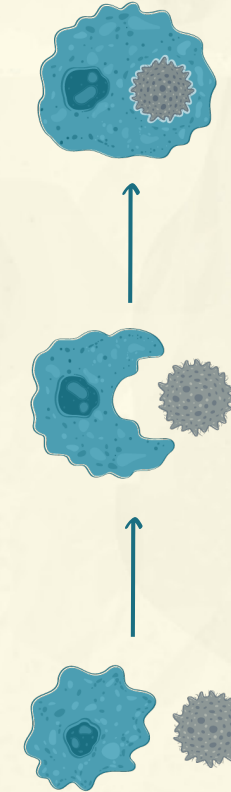
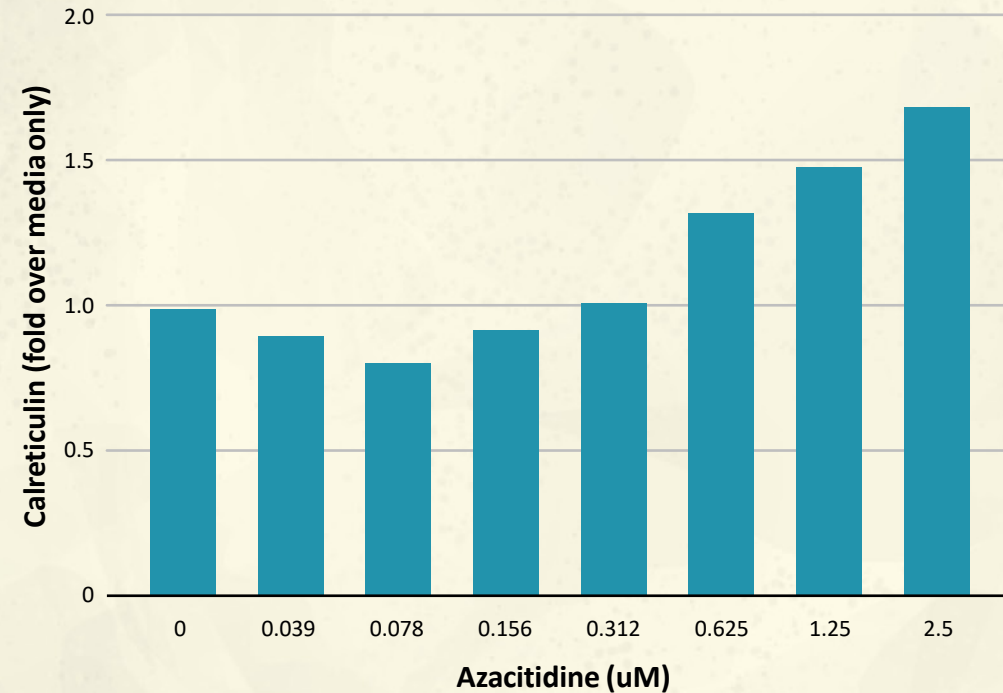
Sallman, ASCO 2020

CD47 blocker 5F9 (magrolimab) shows complete responses only when paired with azacitidine, and causes frequent incidence of treatment-related, high-grade cytopenia

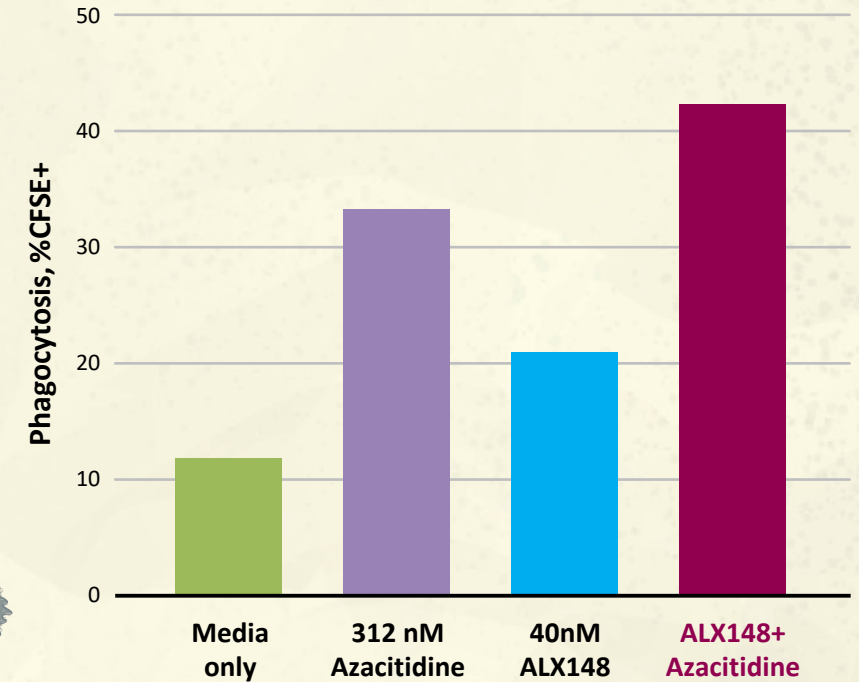
PRECLINICAL: ALX148 INCREASES PHAGOCYTOSIS OF BACKBONE MDS DRUG, AZACITIDINE

ALX148
in
MDS

Calreticulin levels on HL60 Cells



Phagocytosis of HL60 Cells

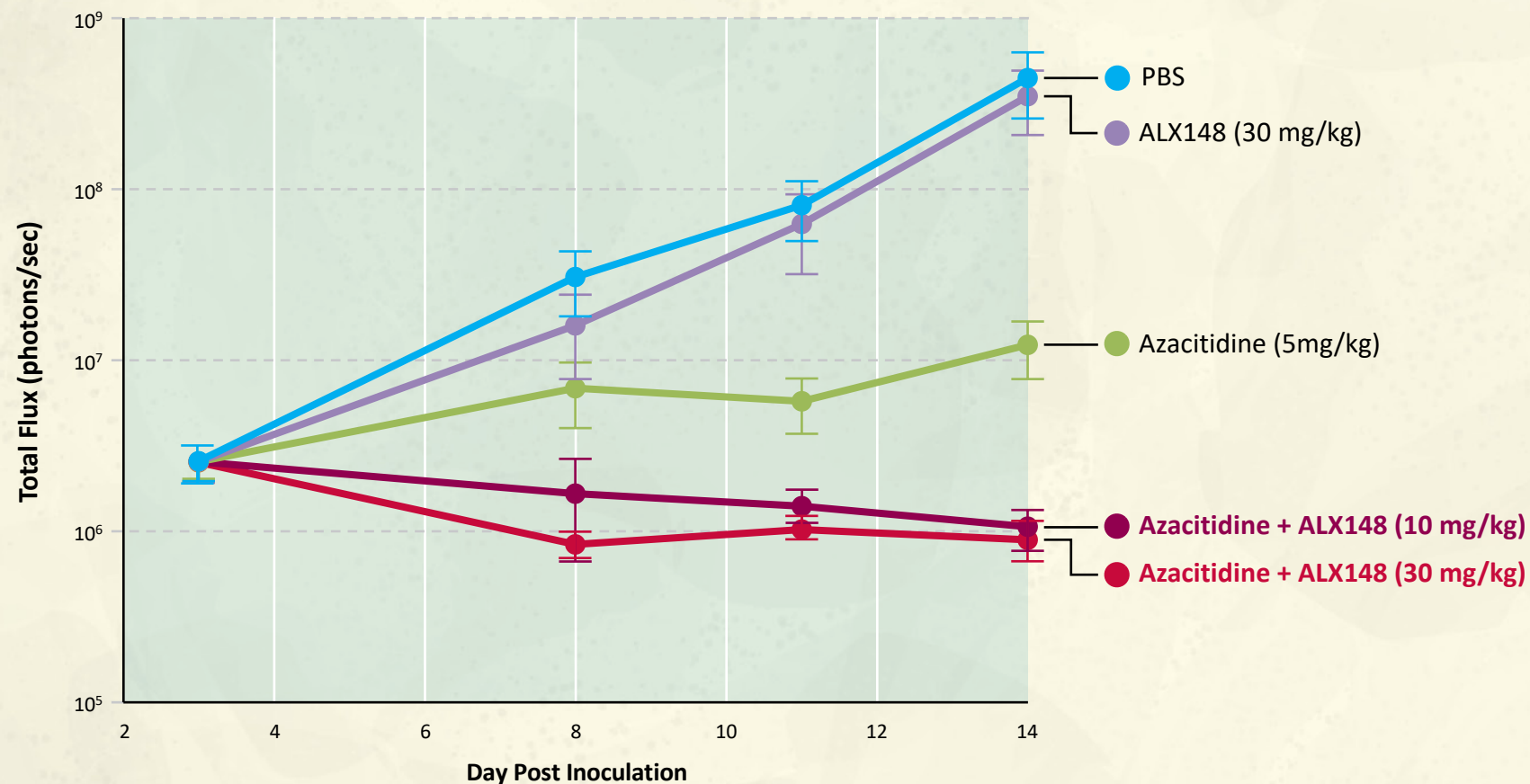


Azacitidine induces calreticulin display.
ALX148 increases phagocytosis in combination with azacitidine.

ALX148 INCREASES TUMOR INHIBITION OF AZACITIDINE

ALX148
in
MDS

HL60 LUC

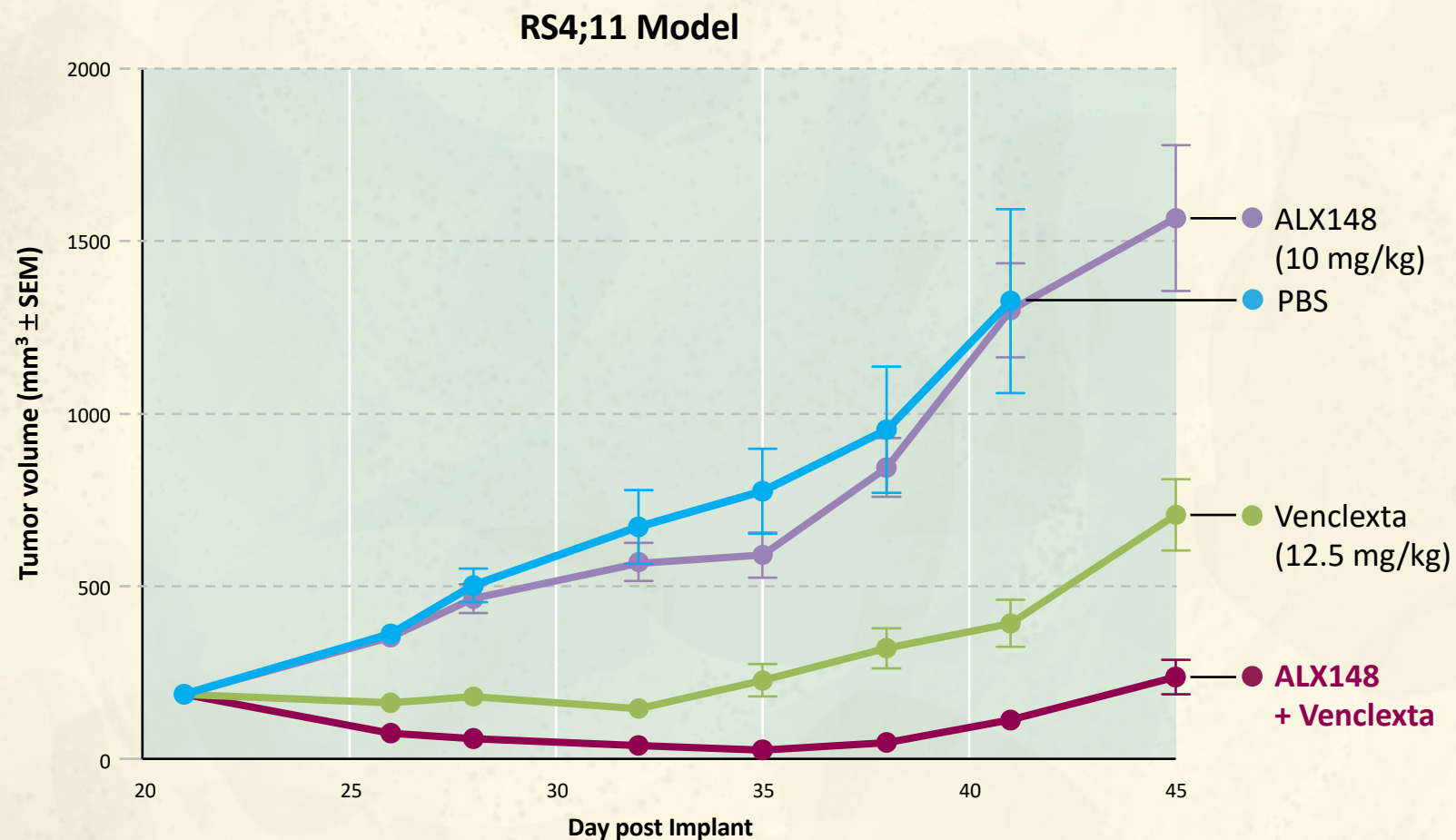


Combination
opportunity in MDS
and AML

Disseminated AML mouse model

ALX148 INCREASES TUMOR INHIBITION OF VENCLEXTA

ALX148
in
AML



Combination
opportunity
in AML

MDS TRIAL PLANS

Phase 1 trial – Open for Accrual



Patients:

N=~24

R/R and treatment naïve
IPSS-R intermediate,
high, very high risk MDS



Treatment:

ALX148

20 mg/kg (Q2W)
30 mg/kg (Q2W)
or 60 mg/kg (Q4W)
+

Azacitidine

75 mg/m² daily for 7 days
of 28 day cycle



Endpoint:

- safety of combination

Phase 2 Randomized Trial



Patients:

Treatment naïve
IPSS-R intermediate, high, very
high risk MDS



Treatment:

ALX148

Recommended phase 2 dose
+
Azacitidine

vs.

Azacitidine

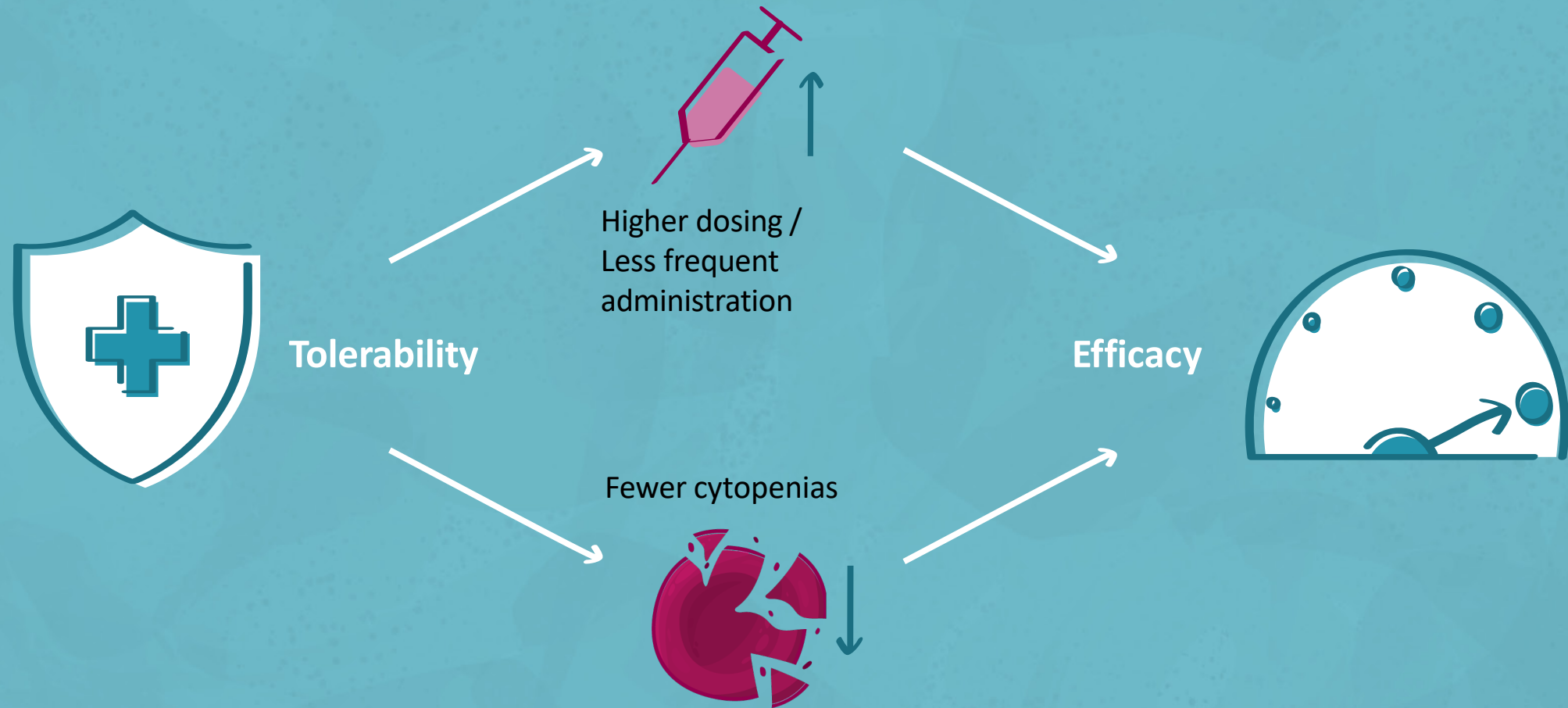


Endpoint:

- complete response rate (CRR)
(from benchmark of 17% to goal of 35%)

ALX148 DIFFERENTIATION POTENTIAL ENABLED BY TOLERABILITY

ALX148
in
MDS



ALX148 SUMMARY



**ALX148 tolerability profile
enables combination with
range of agents**



**ALX148 Higher dosing
and
smaller molecular weight
facilitate tumor
penetration for greater
efficacy**

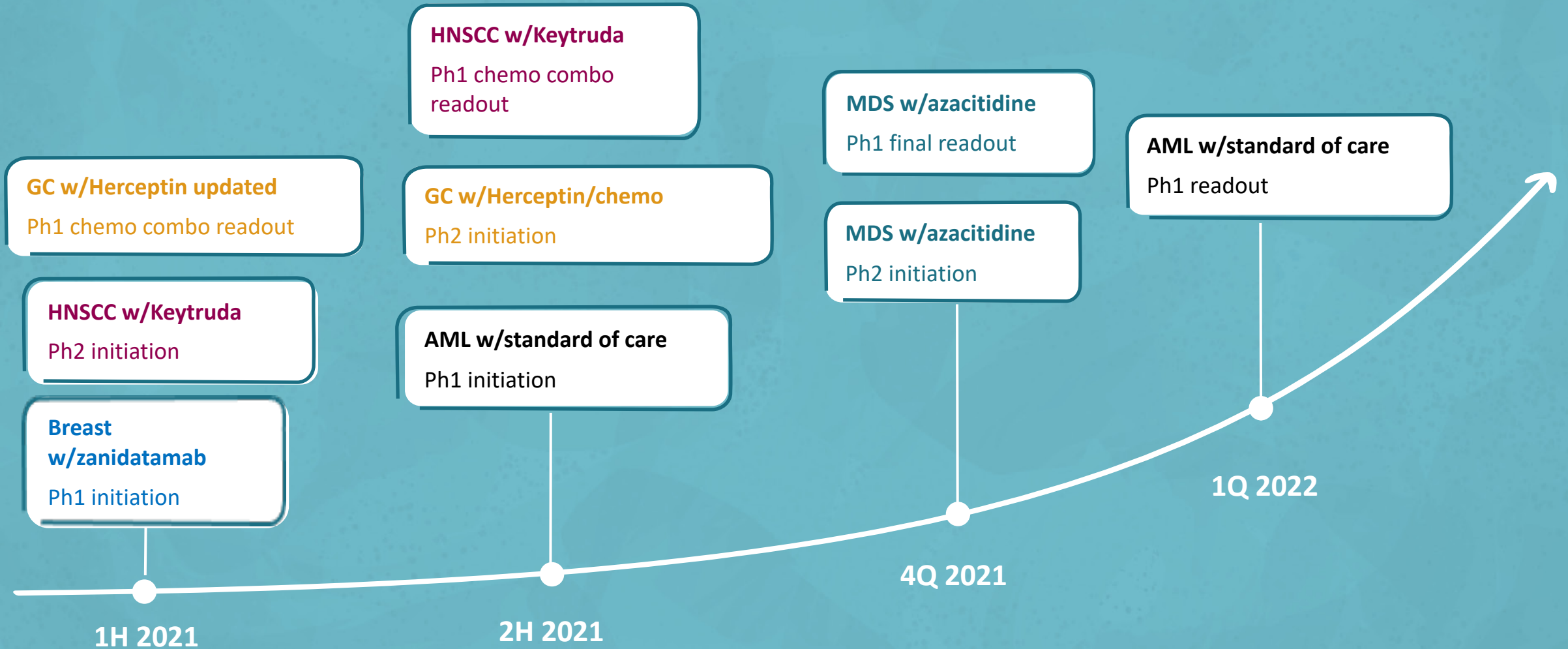


**Clinical proof-of-principle in
hematologic
and solid tumors**



**ALX148 is the
only CD47 blocker to show
encouraging response data in solid
tumor indications**

ALX148 DEVELOPMENT PROGRESS AND FUTURE PLANS



EARLY STAGE PIPELINE: SIRP α -TRAAC COLLABORATION

ALX ONCOLOGY AND TALLAC THERAPEUTICS 50/50 JOINT COLLABORATION ON NOVEL SIRP α ANTIBODY – TLR9 AGONIST CONJUGATE (SIRP α TRAAC)



Provides
SIRP α antibody

- CD47-SIRP α is a dominant myeloid checkpoint mechanism where SIRP α is expressed on myeloid and dendritic cells as well as on a range of tumor cells.
- SIRP α expression on tumor cells enables tumor microenvironment localization of SIRP α TRAAC.



Provides
TRAAC platform
and TLR9 agonist

- Toll-like receptor 9 (TLR9) is a key receptor in the innate immune response.
- Synthetic CpG oligonucleotides (CpG ODNs) are potent TLR9 agonists that stimulate antitumoral cytokine production and immune activation.
- Novel Toll-like receptor agonist antibody conjugation platform (TRAAC) enables systemic delivery of targeted TLR9 activation.

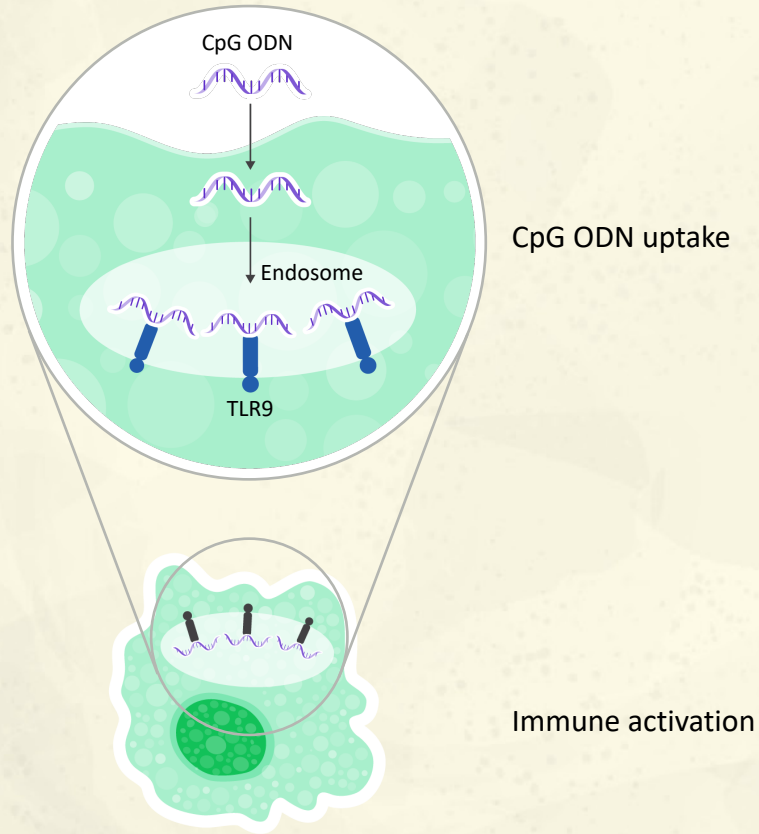
SIRP α TRAAC induces targeted immune activation, bridging innate and adaptive immune responses.

SIRP α TRAAC simultaneously overrides “don’t eat me” signals by blocking CD47-SIRP α myeloid checkpoint pathway and induces TLR9-based immune activation in antigen presenting cells (APCs).

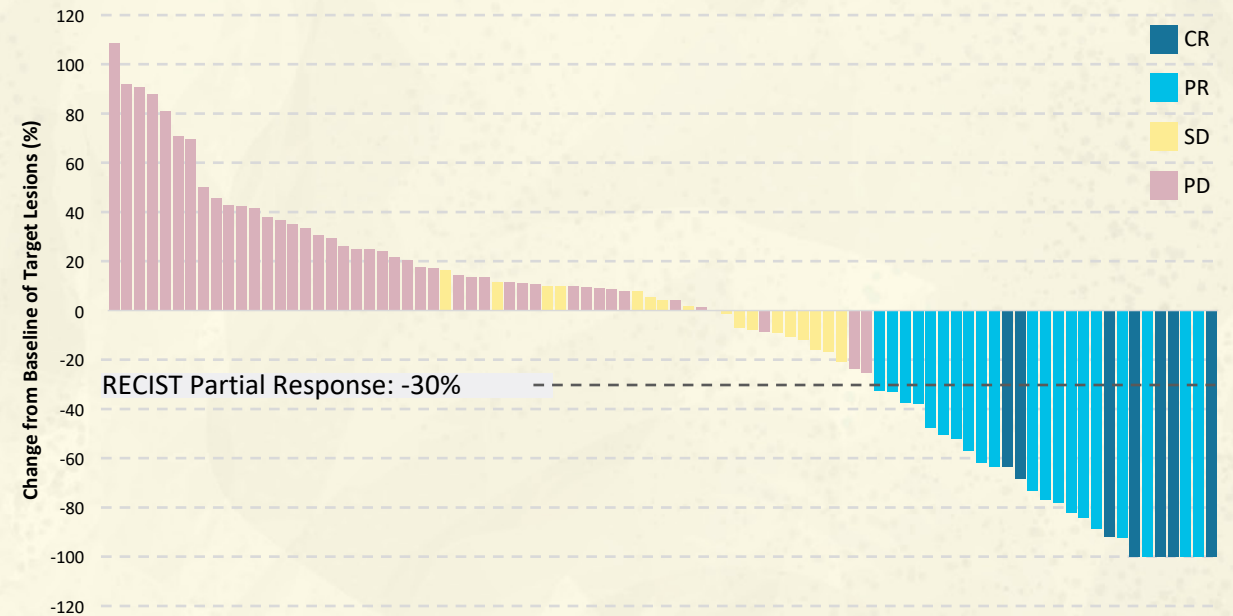
TOLL-LIKE RECEPTOR 9 (TLR9): A KEY INNATE PATHWAY

PROOF-OF-CONCEPT DATA IN MELANOMA PATIENTS WITH INTRATUMORAL TLR9 AGONISTS

TLR9 stimulation by CpG ODN leads to immune cell activation



Intratumoral programs have demonstrated clinical activity



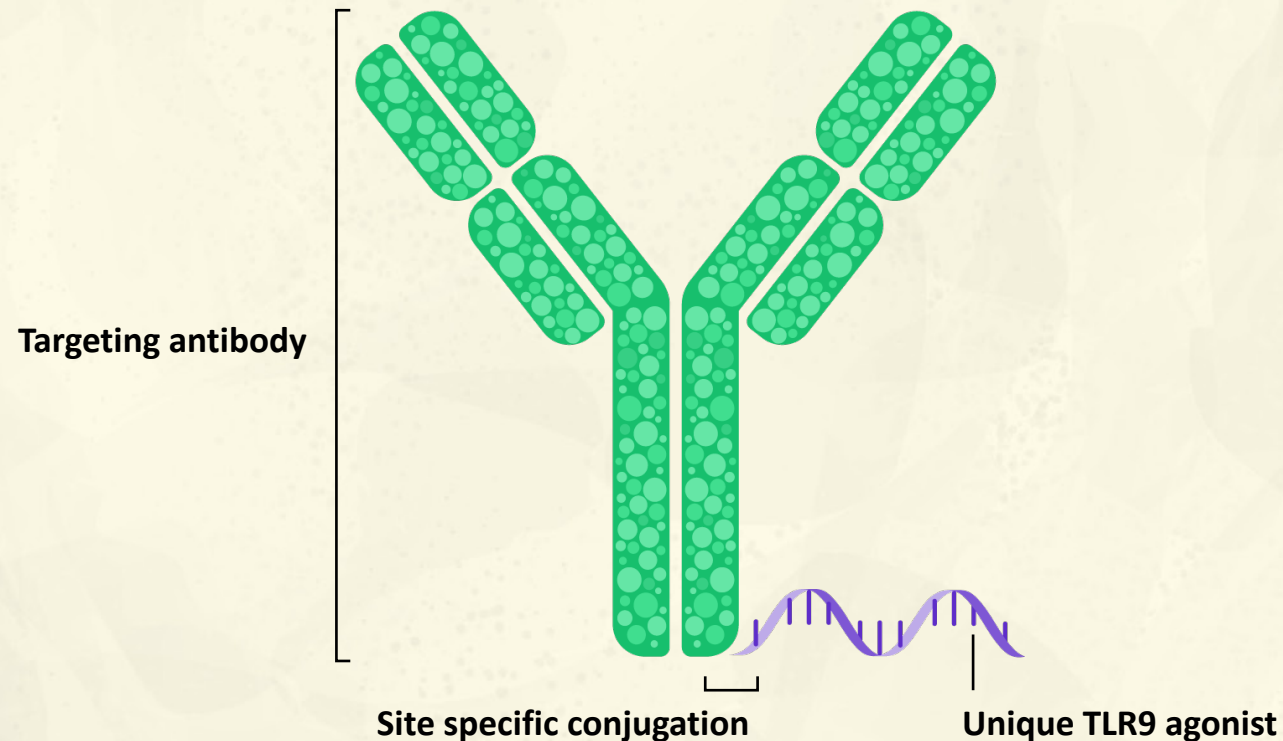
CMP-001 (Checkmate) + Pembrolizumab in Anti-PD-1 Refractory Melanoma, ¹⁻⁴Checkmate, S1 2020.

Additional clinical data from SD-101 (Dynavax), IMO-2125 (Idera) and AST-008 (Exicure) further validate TLR9 agonism in cancer.

TALLAC TRAAC PLATFORM: SYSTEMIC, TARGETED IMMUNE ACTIVATION

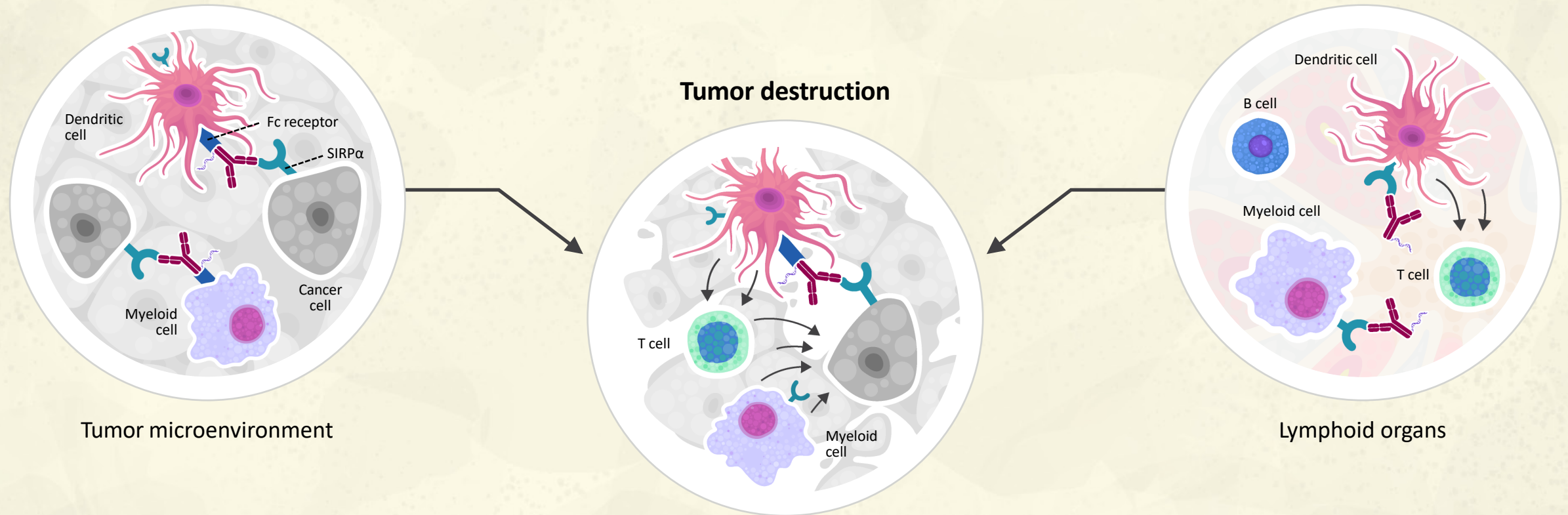
ANTIBODY DIRECTS TLR9 AGONIST (T-CPG) TO SPECIFIC IMMUNE CELLS

TLR9 Agonist Antibody Conjugate (TRAAC):
Systemic dosing with cell specific TLR9 activation



Targeted-CpG (T-CpG) designed specifically for compatibility with antibody conjugation, superior PK, receptor-mediated uptake and TLR9 stimulation

SIRP α IS EXPRESSED ON MYELOID AND DENDRITIC CELLS AS WELL AS SELECTED TUMOR TYPES

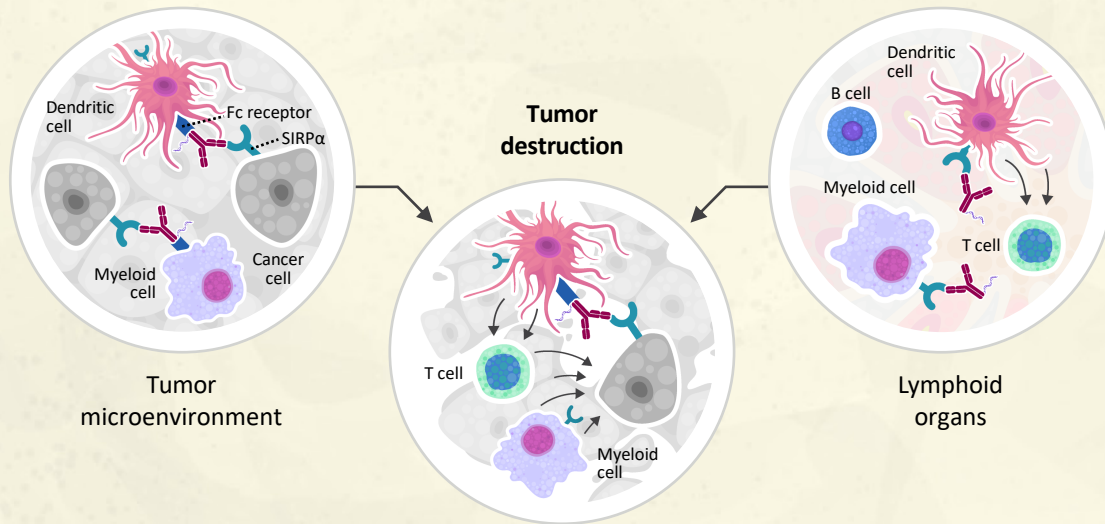
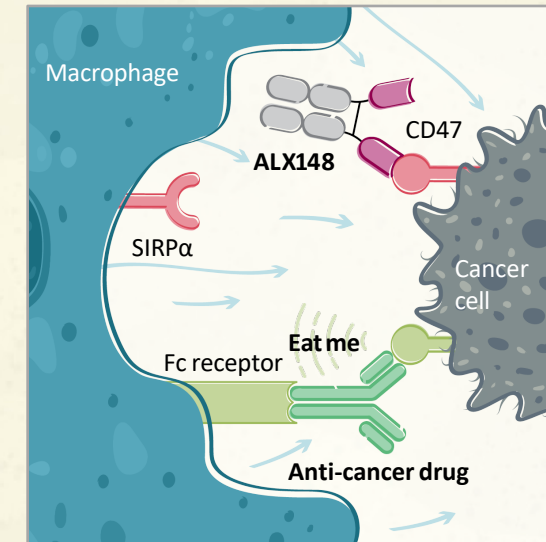


- SIRP α TRAAC binding to myeloid cells targets TLR9 activation in myeloid cells that matter (e.g. dendritic cells).
- SIRP α expression on tumor cells enables tumor microenvironment localization of SIRP α TRAAC.
- SIRP α TRAAC blocks CD47-SIRP α myeloid checkpoint pathway.

SIRP α TRAAC PROGRAM IS COMPLEMENTARY TO ALX148

ALX148 is an antagonistic molecule designed to maximize the activity of a wide array of anti-cancer agents by blockade of the CD47 myeloid checkpoint.

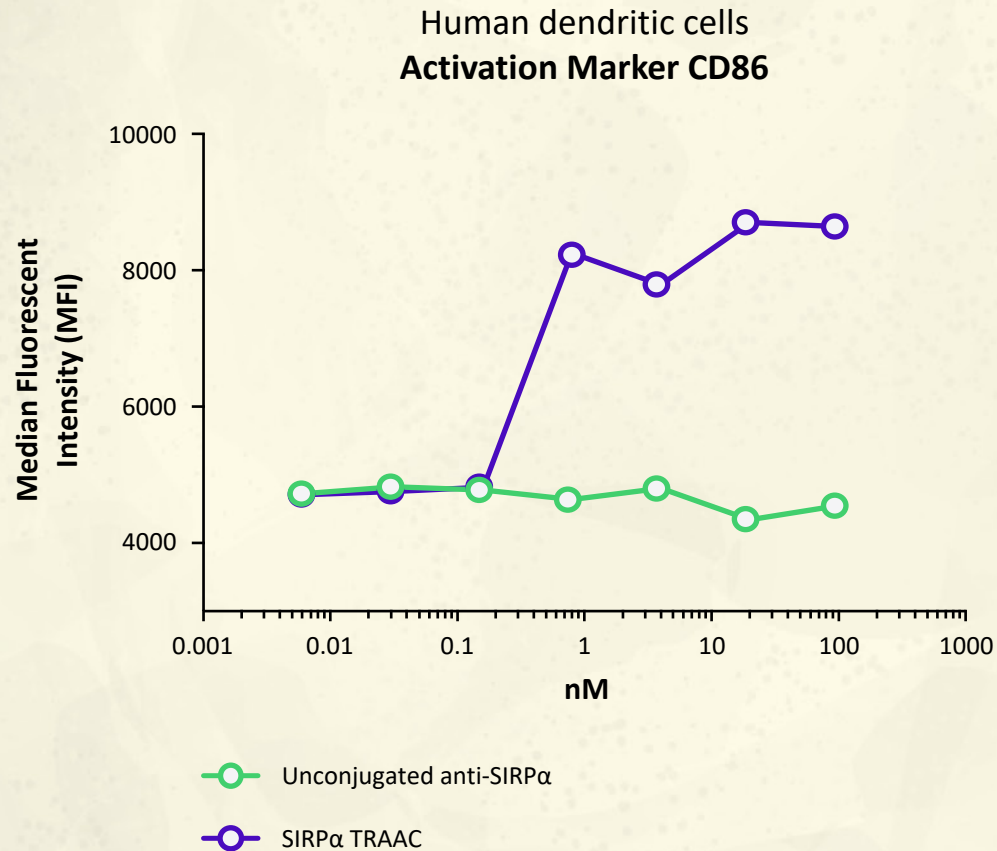
Removal of the CD47 inhibitory signal requires constant, full blockade of the pathway.



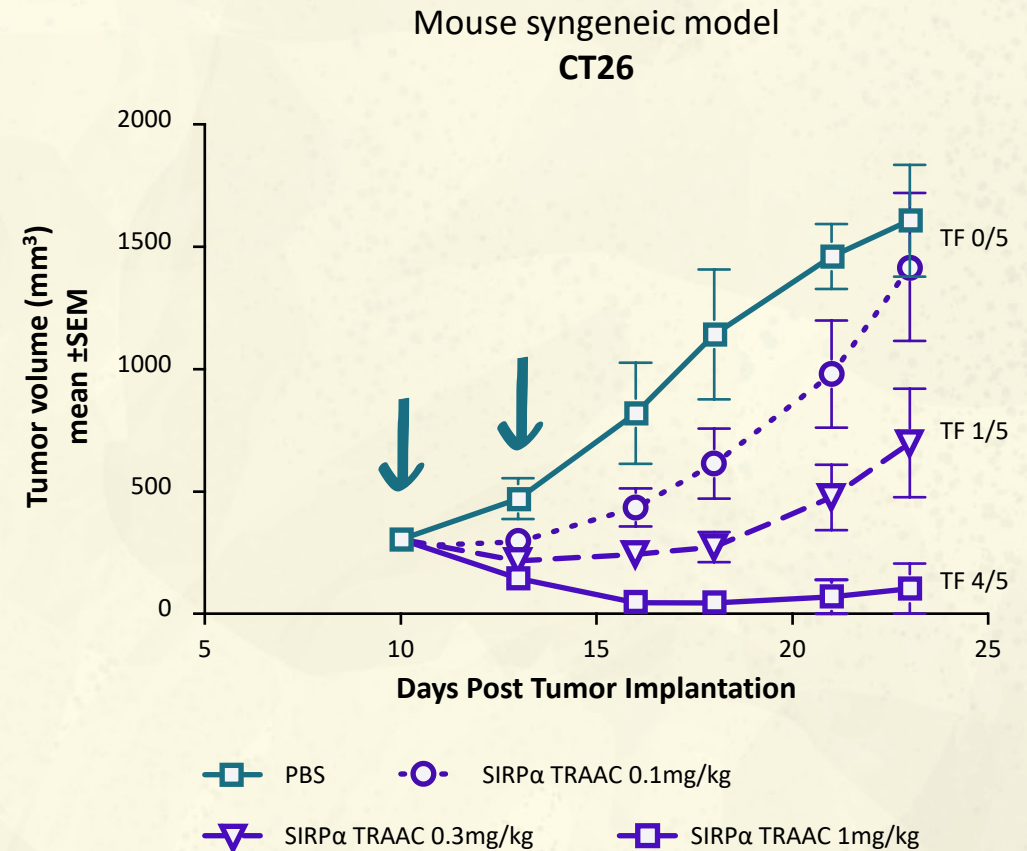
SIRP α TRAAC is an agonistic molecule that directly activates dendritic cells and initiates a coordinated innate and adaptive immune response against cancer.

In the case of agonistic molecules (TLR9 agonist), constant blockade is not required.

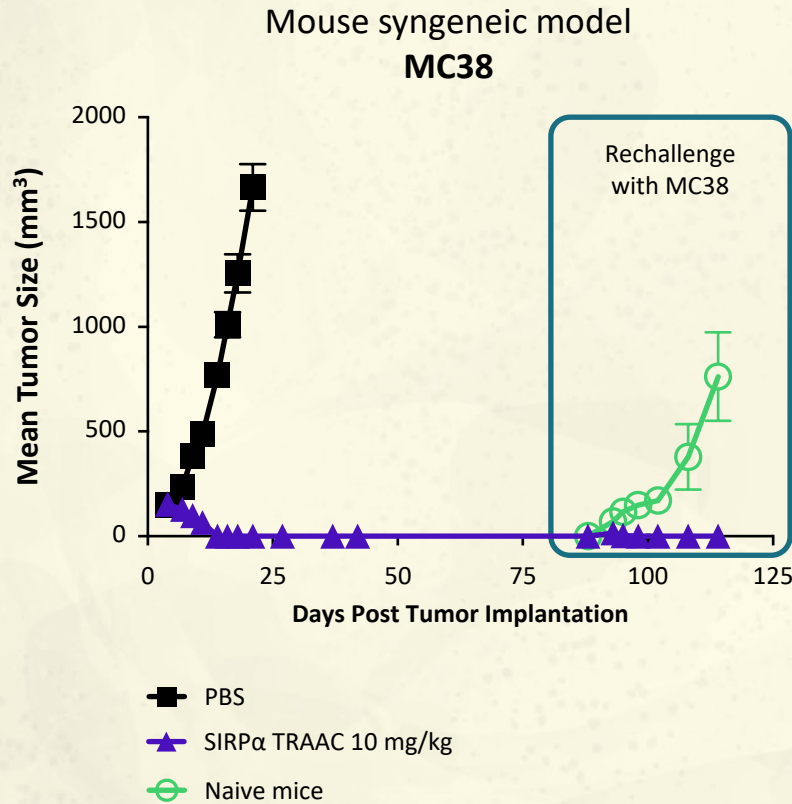
SIRP α TRAAC INDUCES POTENT AND SELECTIVE IMMUNE ACTIVATION AND LEADS TO POTENT SINGLE AGENT ACTIVITY IN TUMOR MODELS



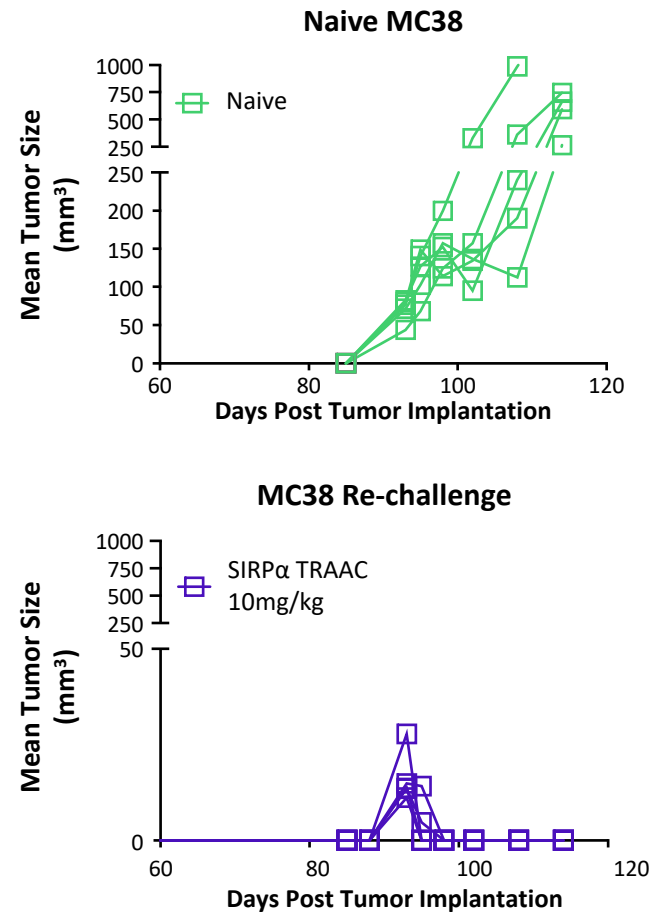
Harrabi et al., SITC, 2020



SYSTEMIC ADMINISTRATION OF SIRP α TRAAC GENERATES DURABLE ANTI-TUMOR RESPONSE AND IMMUNOLOGICAL MEMORY

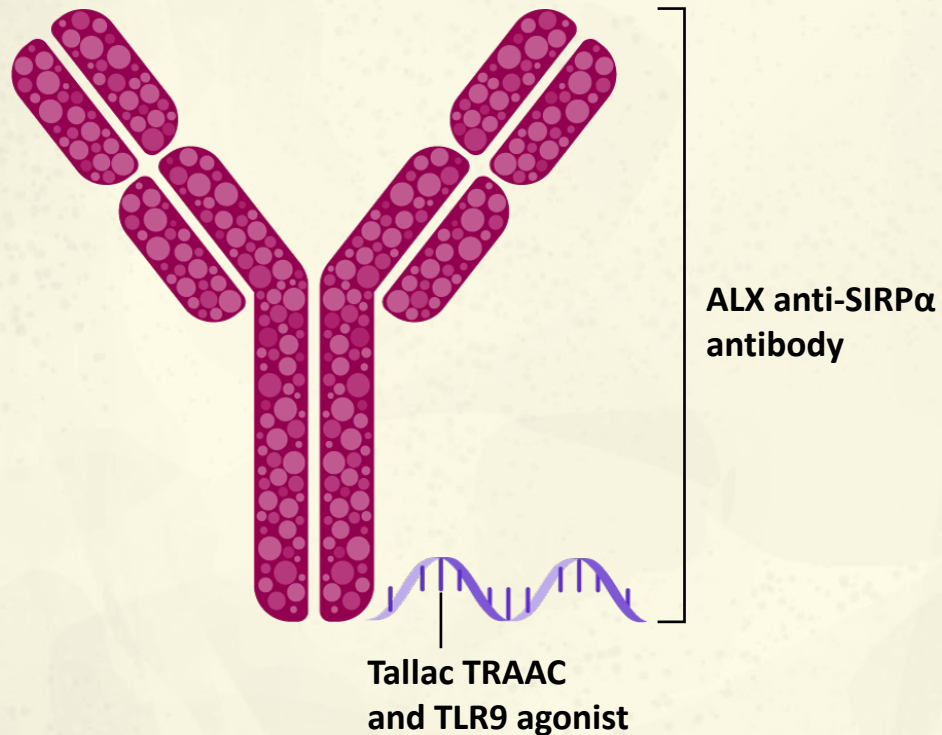


Harrabi et al., SITC, 2020



- Established MC38 tumors were eradicated following 10 mg/kg 2q3d systemic treatment with SIRP α TRAAC.
- These tumor free mice were then re-challenged 60-70 days post tumor clearance.
- SIRP α TRAAC treatment group demonstrated immune protection from the tumor re-challenge.
- Naïve age-matched mice were used as control for tumor growth.

SIRP α TRAAC: TARGETING IMMUNE ACTIVATION TO WHERE IT MATTERS

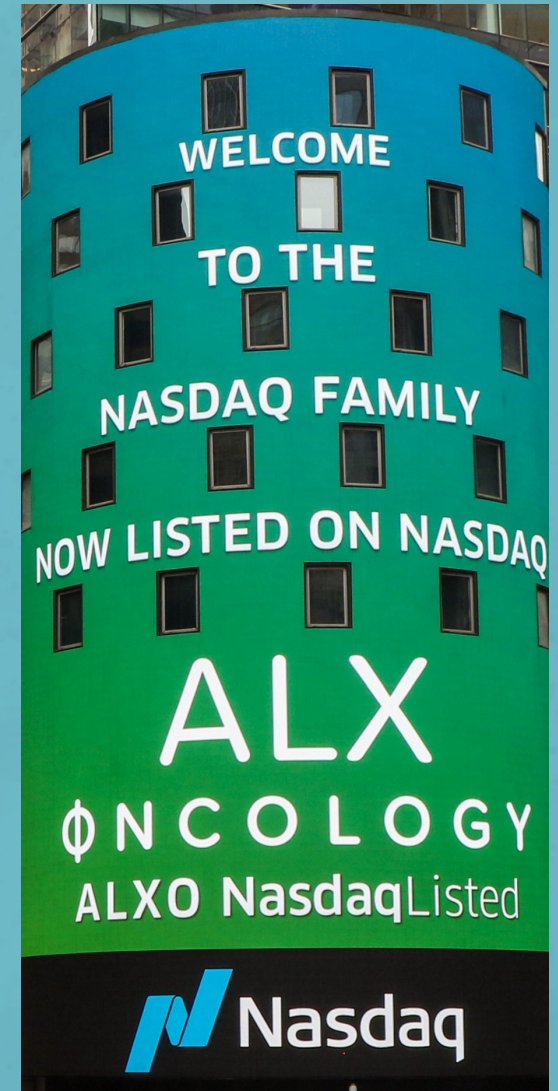


- SIRP α TRAAC binding to myeloid cells targets TLR9 activation in key myeloid cells (e.g. dendritic cells).
- SIRP α expression on tumor cells enables localization of SIRP α TRAAC to tumor microenvironment.
- SIRP α TRAAC blocks CD47-SIRP α myeloid checkpoint pathway.
- Antibody-like PK profile allows for convenient dosing.
- Antibody conjugate produced through established manufacturing processes.

IND expected end of 2022

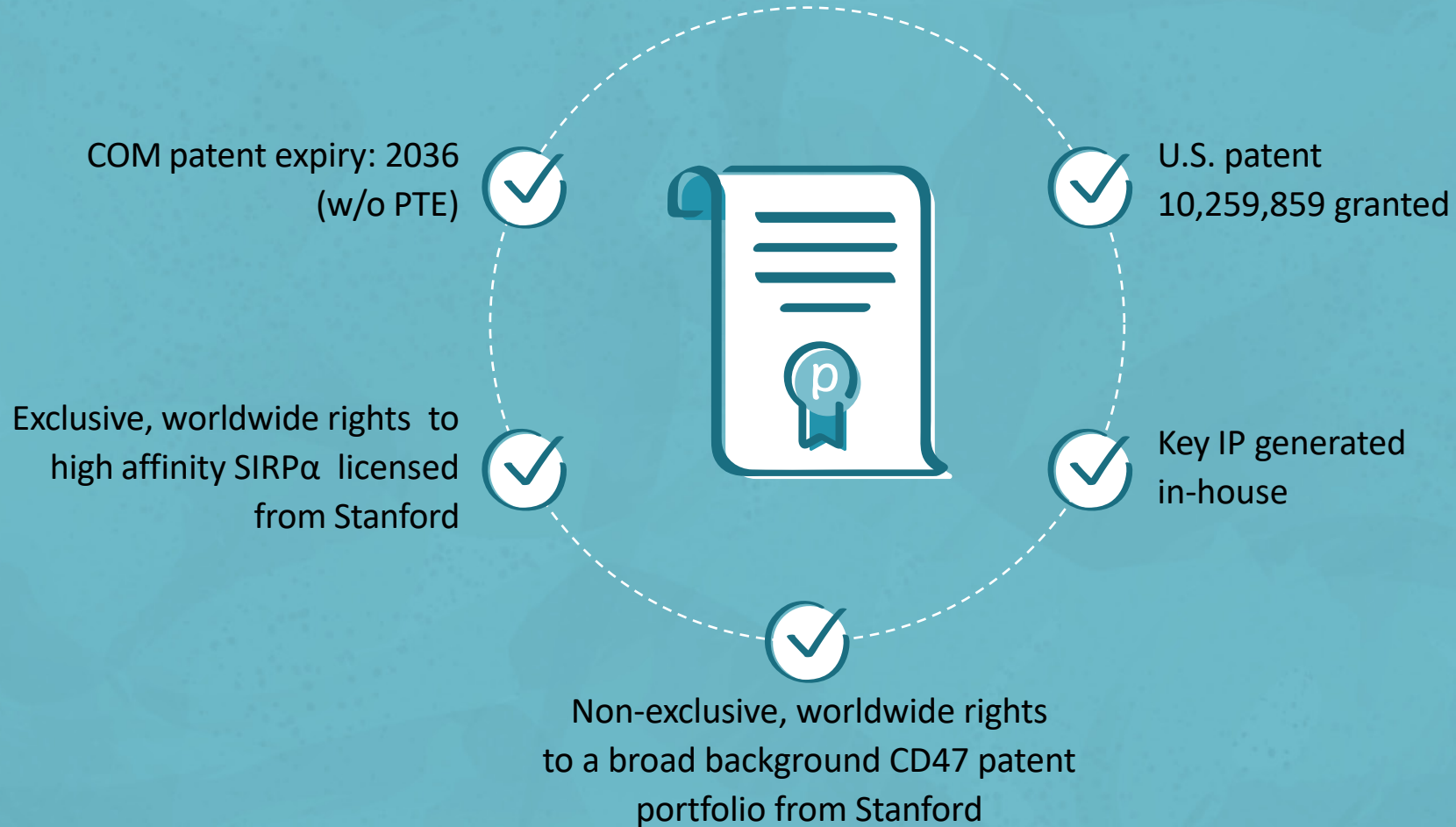
FINANCIAL INFORMATION

- Consummated IPO on July 21, 2020
- Closed follow-on offering on December 14, 2020
 - Gross proceeds of \$208.0 million
 - 2.737 million shares at \$76 per share
- Cash and cash equivalents as of December 31, 2020:
 - \$434.2 million
- Expected cash runway through 2024



STRONG INTELLECTUAL PROPERTY

Robust patent position



WHY INVEST IN ALX ONCOLOGY: LEADER IN CD47 THERAPY



CD47 is a novel immune checkpoint pathway with clinical proof-of-concept



Clinical proof-of-principle in hematologic and solid tumors



ALX148 is a CD47 blocker with potential for greater efficacy and tolerability due to unique mechanism of action

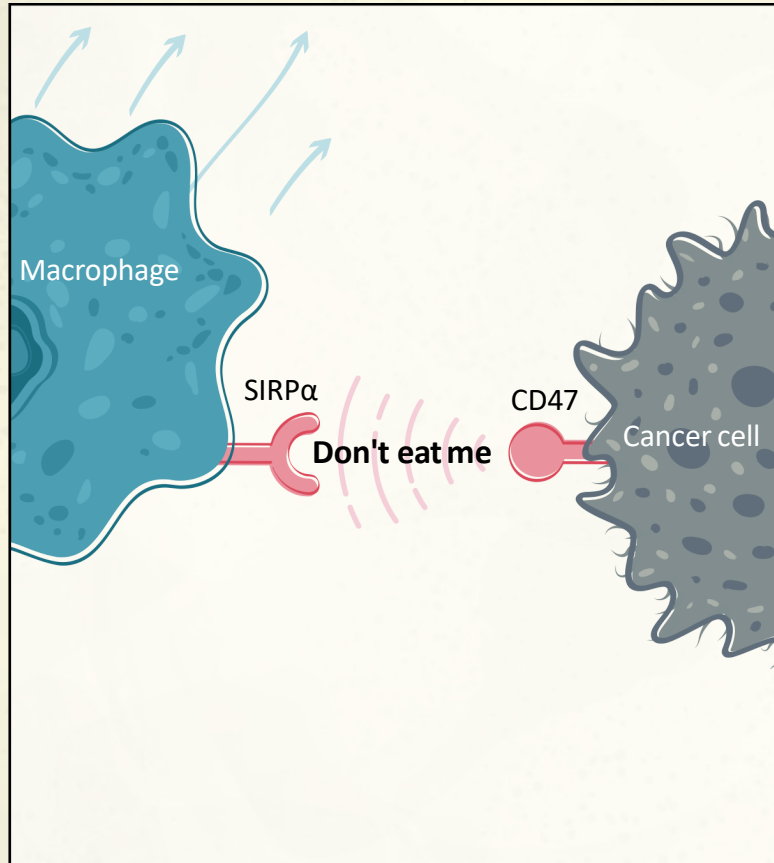


Growing pipeline in myeloid biology

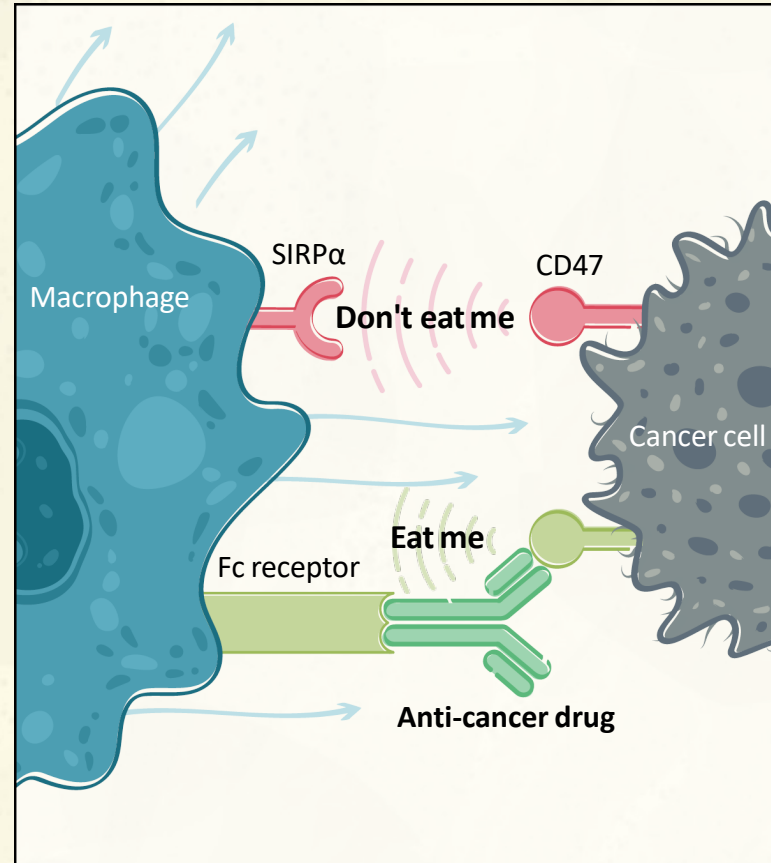
BACKUP SLIDES

CD47 MECHANISM OF ACTION AS MYELOID CHECKPOINT

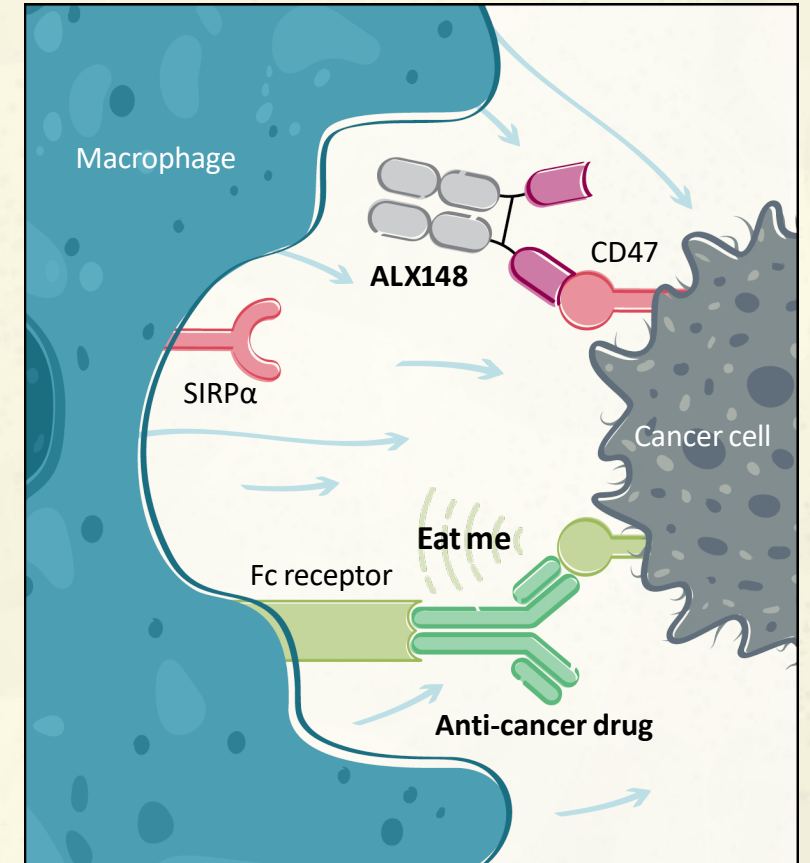
Basal state:



Anti-cancer drug alone:



ALX148 combined with anti-cancer drug:



ALX148: designed to work with partner anti-cancer drugs to maximize phagocytosis of cancer cells

NHL TOLERABILITY

Selected hematologic, treatment related adverse events	ALX148 + Rituxan (N=33) ¹		CC-90002 + Rituxan (n=26) ²		5F9 (magrolimab) + Rituxan (n=115) ³	
	Total % (n)	≥Grade 3	Total % (n)	≥Grade 3	Total %	≥Grade 3
Neutropenia	6% (2)	6% (2)	50% (13)	39% (10)	~13%	~7%
Thrombocytopenia/ Decreased Platelets	-	-	35% (9)	23% (6)	~20%	~13%
Anemia	6% (2)	3% (1)	12% (3)	4% (1)	~30%	~15%

¹ASH 2020 Abstract 3016

²ASH 2019 Abstract 4089

³EHA 2019 Abstract S867

ALX148:
Tolerability profile
compares favorably to
other CD47 blockers

MAGROLIMAB NHL RESPONSE RATES AND DOSING

DLBCL w/ Rituxan	Ph1	Ph2
N	21	38
Dosing (mg/kg)	up to 30 Weekly	30 and 45 Every Other Week
ORR	48%	29%
CR	33%	5%
PR	14%	24%

ORR = overall response rate.
CR = complete response rate.
PR = partial response rate.

EHA 2019 Abstract S867

Reduced dosing led to
reduced overall
response rate in NHL

NHL: PRELIMINARY CLINICAL TOLERABILITY

ALX148
in
NHL

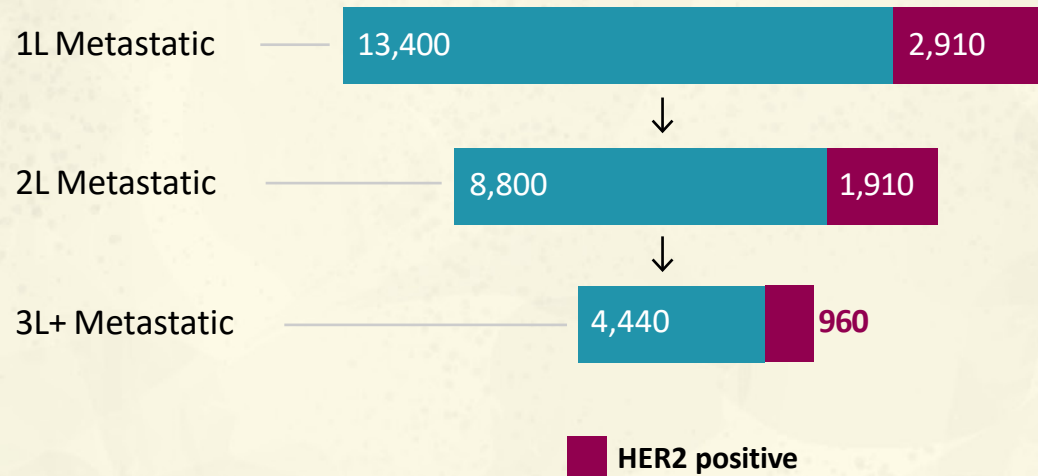
ALX148 + Rituximab (N=33)

Treatment Related Adverse Event	Total n (%)	≥Grade 3 n (%)
Rash	8 (24.2)	—
Fatigue	4 (12.1)	—
Nausea	2 (6.1)	—
Neutrophil Count Decreased	2 (6.1)	2 (6.1)
Anemia	2 (6.1)	1 (3.0)
Myalgia	2 (6.1)	—
Pruritus	2 (6.1)	—

Data Cutoff: October 1, 2020

HER2 POSITIVE GC UNMET NEED

2020 US patient population
by line of systemic therapy¹



- Herceptin is an anti-HER2 antibody that has multiple FDA approvals in patients with HER2 positive cancers
- Clinical trials show that re-treatment with Herceptin has no activity in 2L HER2 positive gastric cancer³

5-year OS in metastatic gastric cancer is only 6%²

PHASE 1B ≥2 LINE GC TRIAL: ALX148 + HERCEPTIN + CYRAMZA + PACLITAXEL TREATMENT RELATED ADVERSE EVENTS

Treatment Related Adverse Events

ALX148 (10/15 mg/kg QW) + Herceptin
+ Cyramza + paclitaxel (N=14)

Adverse Event	Total n(%)
Diarrhea	3 (21)
RASH*	3 (21)
Urticaria	3 (21)
Fatigue	2 (14)
Pruritus	2 (14)
Lymphocyte count decreased	1 (7)
Abdominal pain	1 (7)

*RASH: Rash, Dermatitis

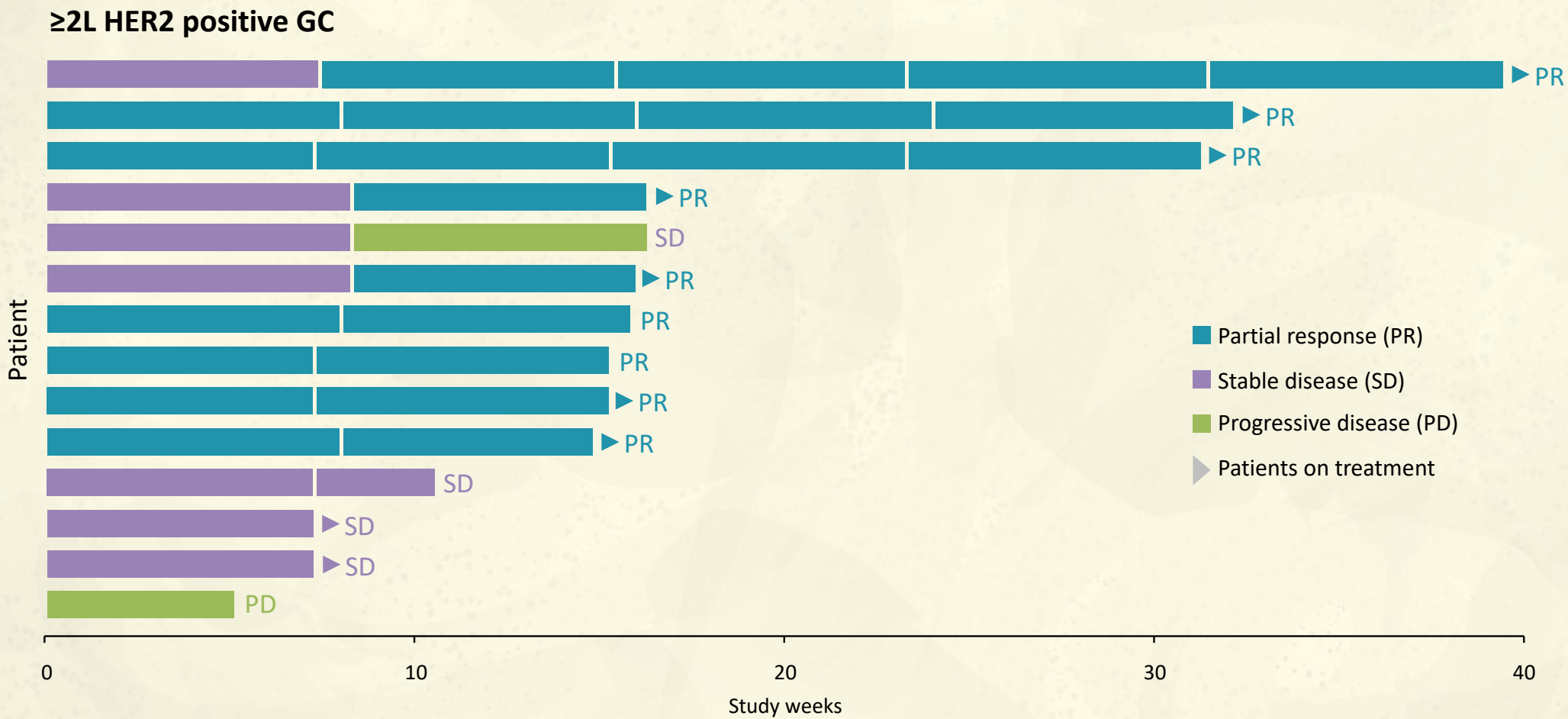
≥ Grade 3 Adverse Events

ALX148 (10 and 15 mg/kg QW) + Herceptin
+ Cyramza + paclitaxel (N=14)

Adverse Event	Total n(%) All Causality		Total n(%) Related	
	Grade 3	Grade 4	Grade 3	Grade 4
Neutrophil count decreased	5 (36)	1 (7)	-	-
Hypertension	5 (36)	-	-	-
Anemia	1 (7)	-	-	-
Hypophosphatemia	1 (7)	-	-	-
Lymphocyte count decreased	1 (7)	-	1 (7)	-
Platelet count decreased	1 (7)	-	-	-
Urinary tract infection	1 (7)	-	-	-

Data Cutoff October 1, 2020

PHASE 1B ≥2 LINE GC TRIAL:
ALX148 + HERCEPTIN + CYRAMZA + PACLITAXEL
BEST OVERALL AND DURATION OF RESPONSE WHILE ON TREATMENT



PHASE 1B FIRST LINE HNSCC: ALX148 + KEYTRUDA + 5FU/PLATINUM TREATMENT RELATED ADVERSE EVENTS

No TRAEs were reported
in 1L HNSCC patients (n=5)

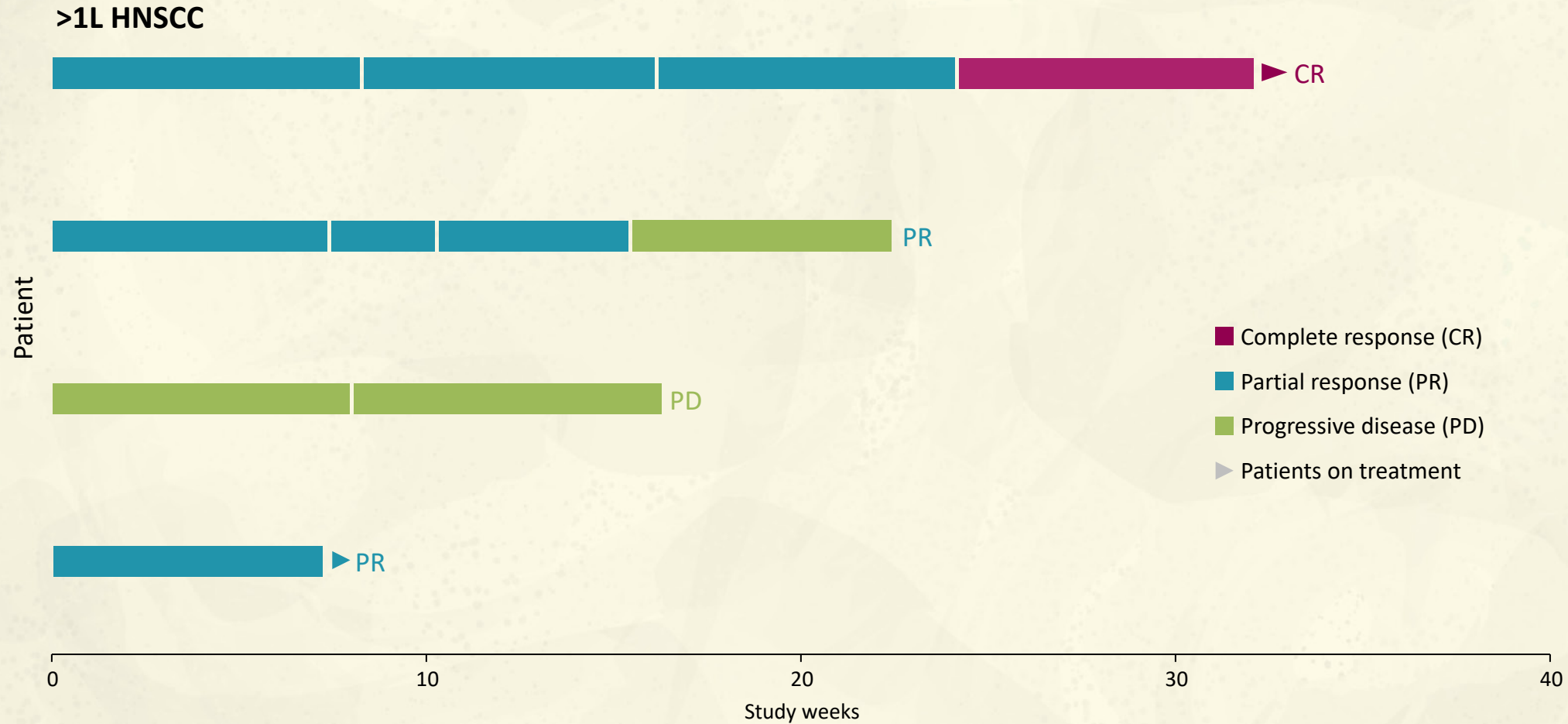
≥ Grade 3 Adverse Events

ALX148 (10 and 15 mg/kg QW) + Keytruda + 5FU + platinum (N=5)

Adverse Event	Total n(%) All Causality		Total n(%) Related	
	Grade 3	Grade 4	Grade 3	Grade 4
Neutrophil count decreased	1 (20)	-	-	-
Anemia	1 (20)	-	-	-
Cardiac tamponade	-	1 (20)*	-	-
Dysphagia	1 (20)	-	-	-
Pericarditis constrictive	1 (20)*	-	-	-
Supraventricular tachycardia	1 (20)*	-	-	-

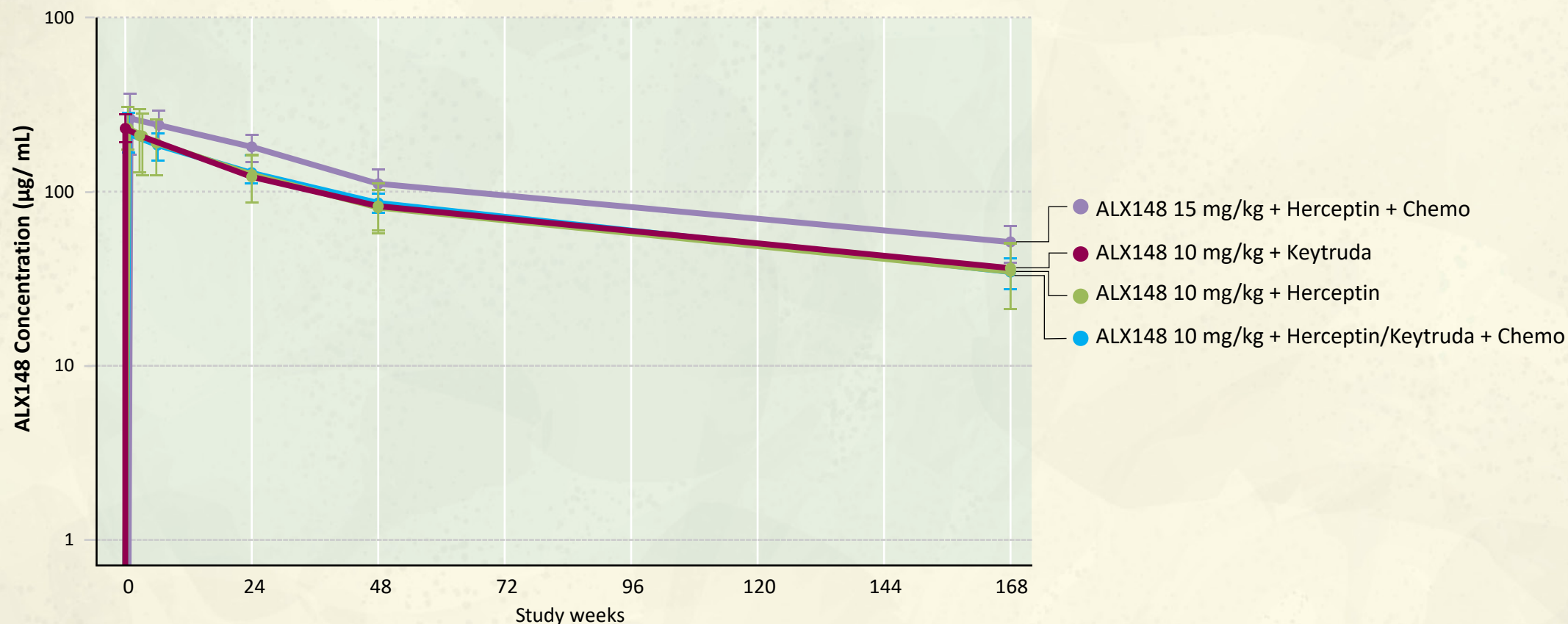
*Events occurred in a single patient with malignant pericardial effusion

PHASE 1B FIRST LINE HNSCC: ALX148 + KEYTRUDA + 5FU/PLATINUM BEST OVERALL AND DURATION OF RESPONSE WHILE ON TREATMENT

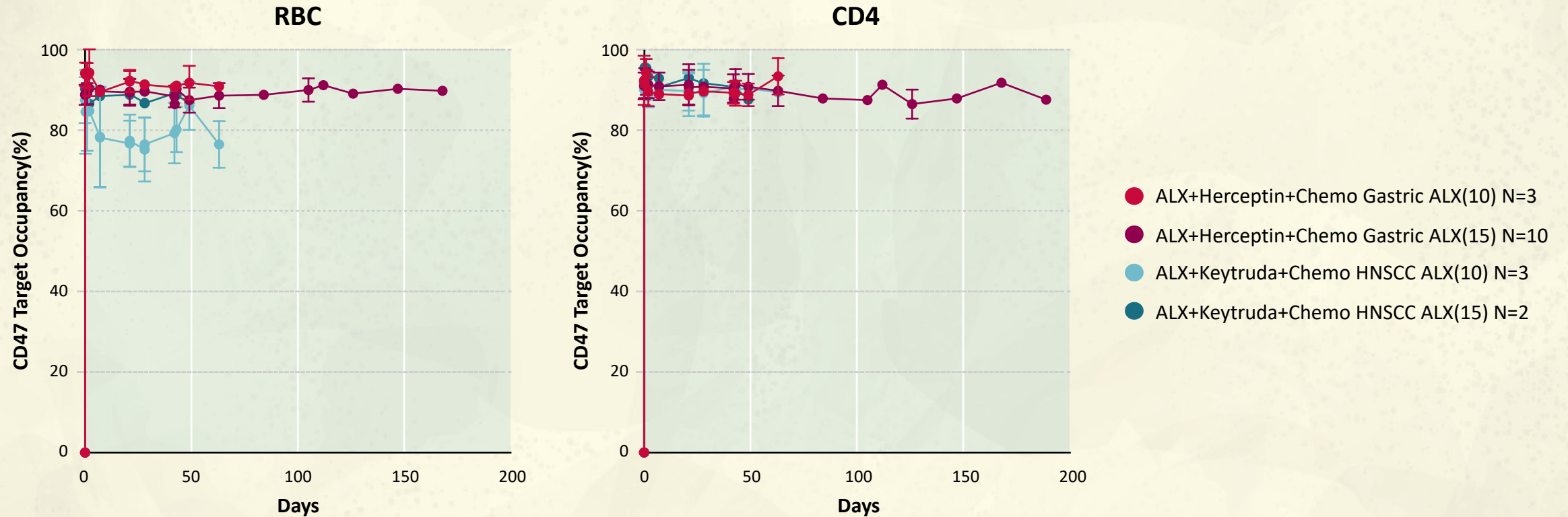


ALX148 PK FOLLOWING COMBINATION THERAPIES IS COMPARABLE WITH AND WITHOUT CHEMOTHERAPY

ALX148
in
HNSCC



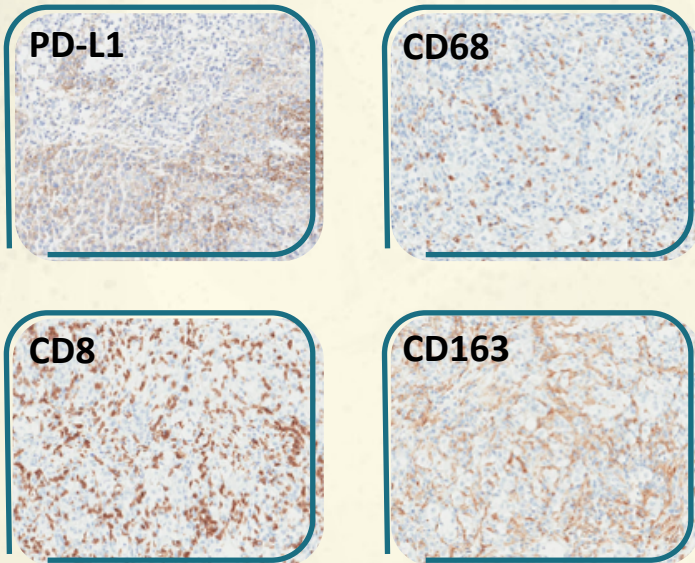
NEAR COMPLETE CD47 TARGET OCCUPANCY IS MAINTAINED THROUGHOUT ALX148 DOSING INTERVAL WHEN COMBINED WITH CHEMOTHERAPY CONTAINING REGIMENS



PRE-TREATMENT IHC RESULTS IN HOT AND COLD TUMORS

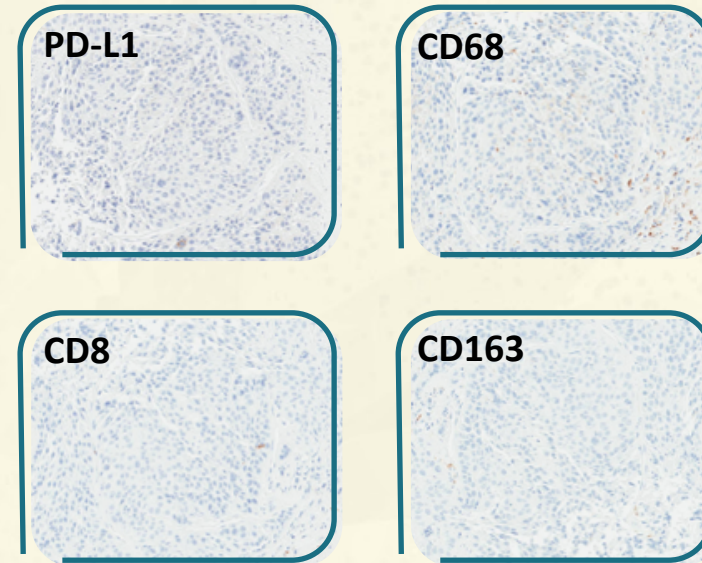
HNSCC PATIENT 1 (PD-L1 POSITIVE) AND PATIENT 2 (PD-L1 NEGATIVE)

Patient 1 Best Overall Response: CR
Immunologically “hot” tumor



Patient 1: HNSCC (CPS 50) characterized as immunologically “hot” with a high density of infiltrating T lymphocytes (CD8) and tumor associated macrophages and myeloid cells (CD68 and CD163).

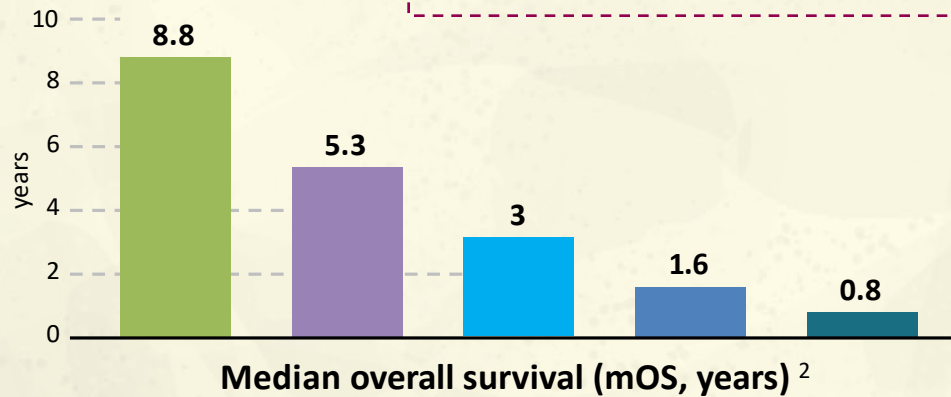
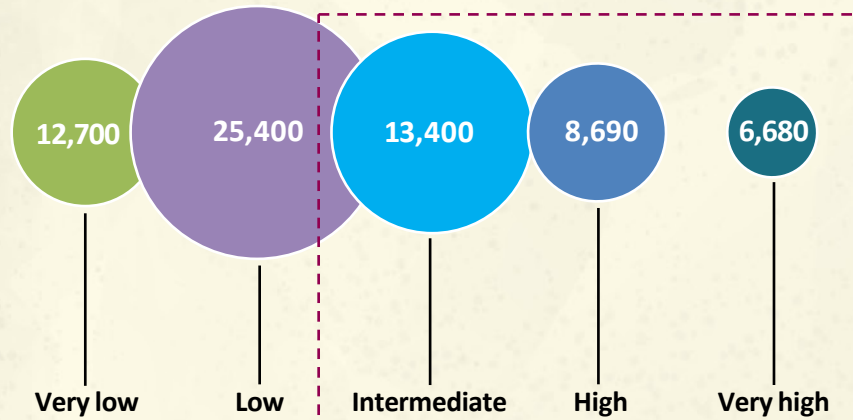
Patient 2 Best Overall Response: PR
Immunologically “cold” tumor



Patient 2: HNSCC (CPS 0) characterized as immunologically “cold” where immune cells are excluded from the tumor core while present at lower density in the peri-tumoral regions.

MDS OPPORTUNITY

US Diagnosed Prevalent Cases ¹



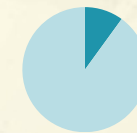
Higher Risk (HR) MDS



Bone marrow transplant

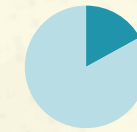


Azacitidine,
Decitabine



<10%

Receive
allogeneic transplant ³



17%

Treated with azacitidine
achieve a CR ⁴

Overall MDS



Nearly all pts
transfused due
to cytopenias

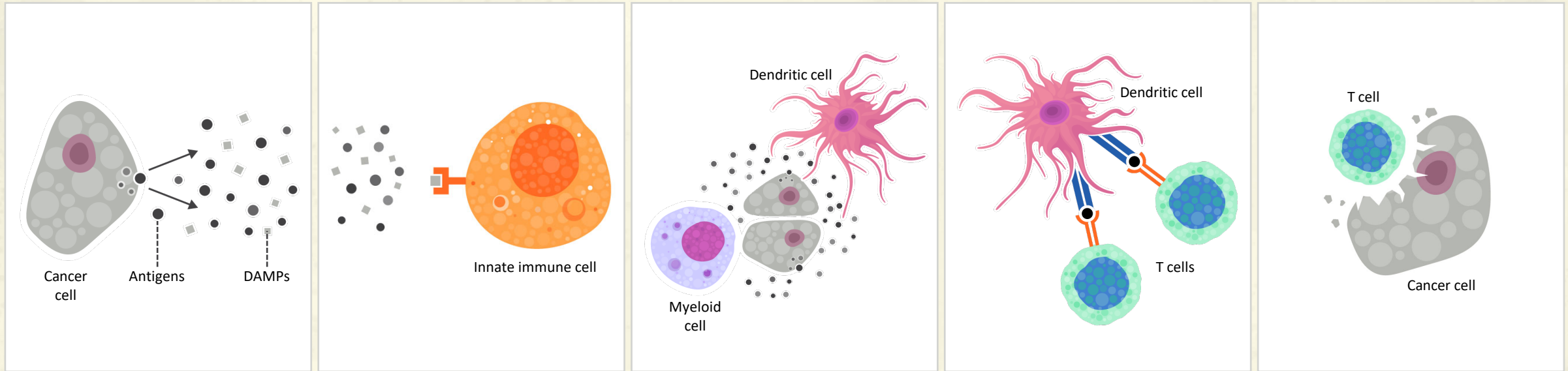


41 of 100

Will die from
cytopenia-related causes ⁵

Higher risk MDS patients are an area of high unmet need.

HARNESSING THE POWER OF INNATE AND ADAPTIVE IMMUNE RESPONSES TO CANCER



1. Release of PAMPs/DAMPs and tumor antigens

2. Detection by PRRs on innate immune cells

3. Amplification of innate immune cell activation

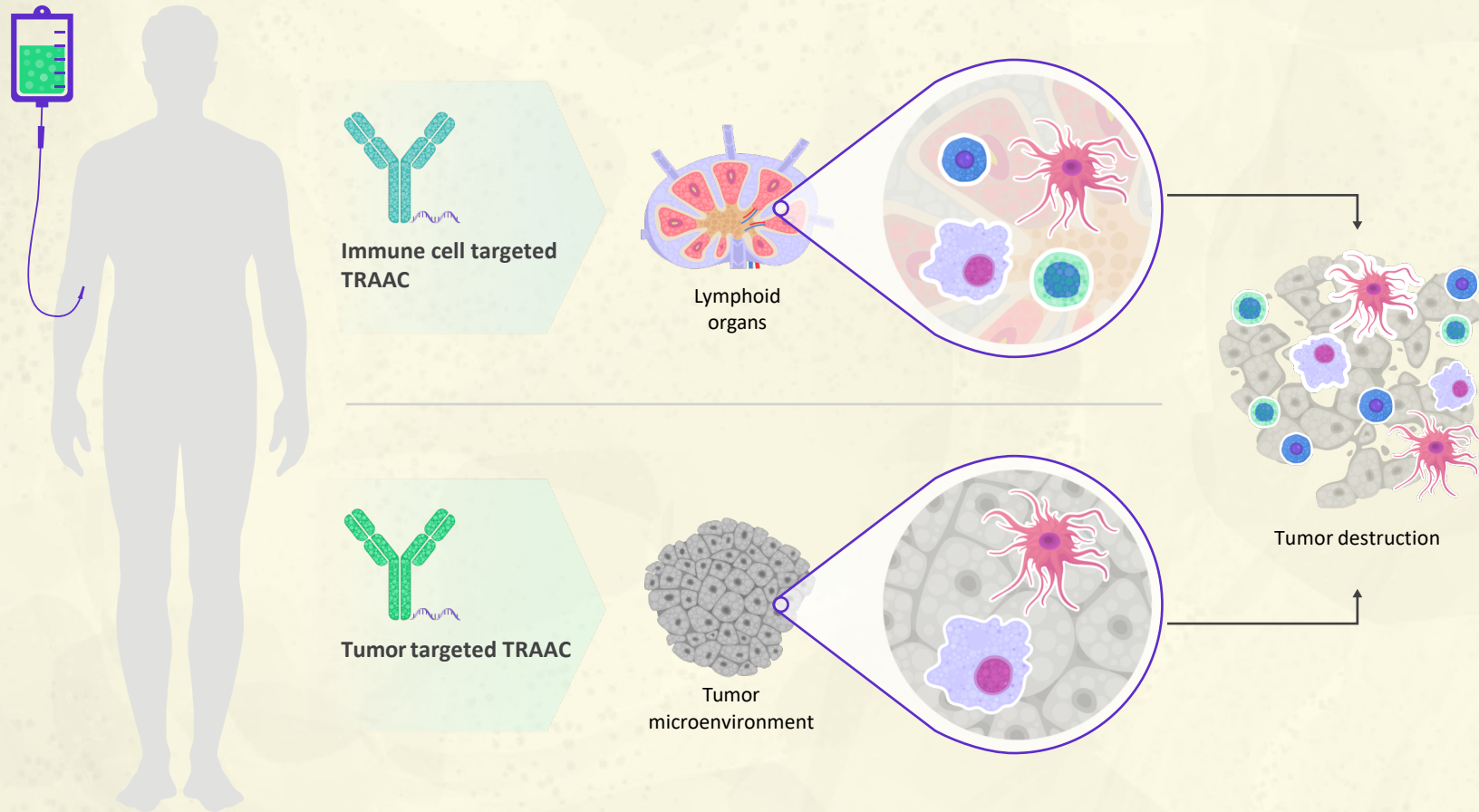
4. Antigen presentation and activation of T cells

5. Recognition and elimination of tumor by T cells

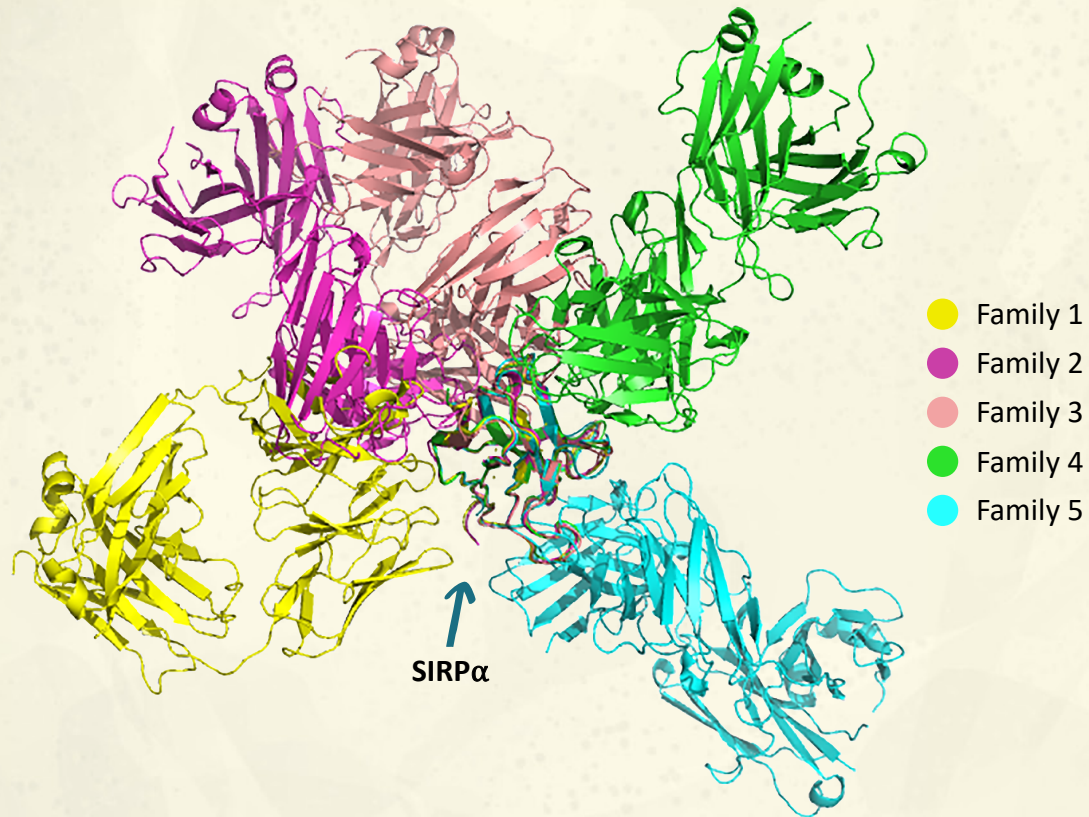
- Successful immune-mediated elimination of cancer requires coordination between the innate and adaptive arms of the immune system.
- Innate immune cells (macrophages, myeloid cells and dendritic cells) may utilize a variety of signaling pathways, including TLR9, TLR7 or 8, STING and CD40, to trigger proinflammatory programs and engage the adaptive immune system.

DAMPs: damage-associated molecular patterns
PAMPs: pathogen-associated molecular patterns
PRRs: pattern recognition receptors

TLR9 AGONIST ANTIBODY CONJUGATE (TRAAC) ENABLES VERSATILE TARGETING OF IMMUNE CELLS THAT MATTER



ALX ONCOLOGY'S SIRP α ANTIBODIES: HIGH AFFINITY AND DIVERSE EPITOPES



ALX's diverse range of SIRP α antibodies

Diversity allows selection of best-in-class SIRP α antibodies:

- Binds human SIRP α variants V1 and V2
- Cross reacts with rodent, monkey and human SIRP α
- Wide range of affinities
- Full coverage of SIRP α domain 1 surface allows selection for optimal epitope