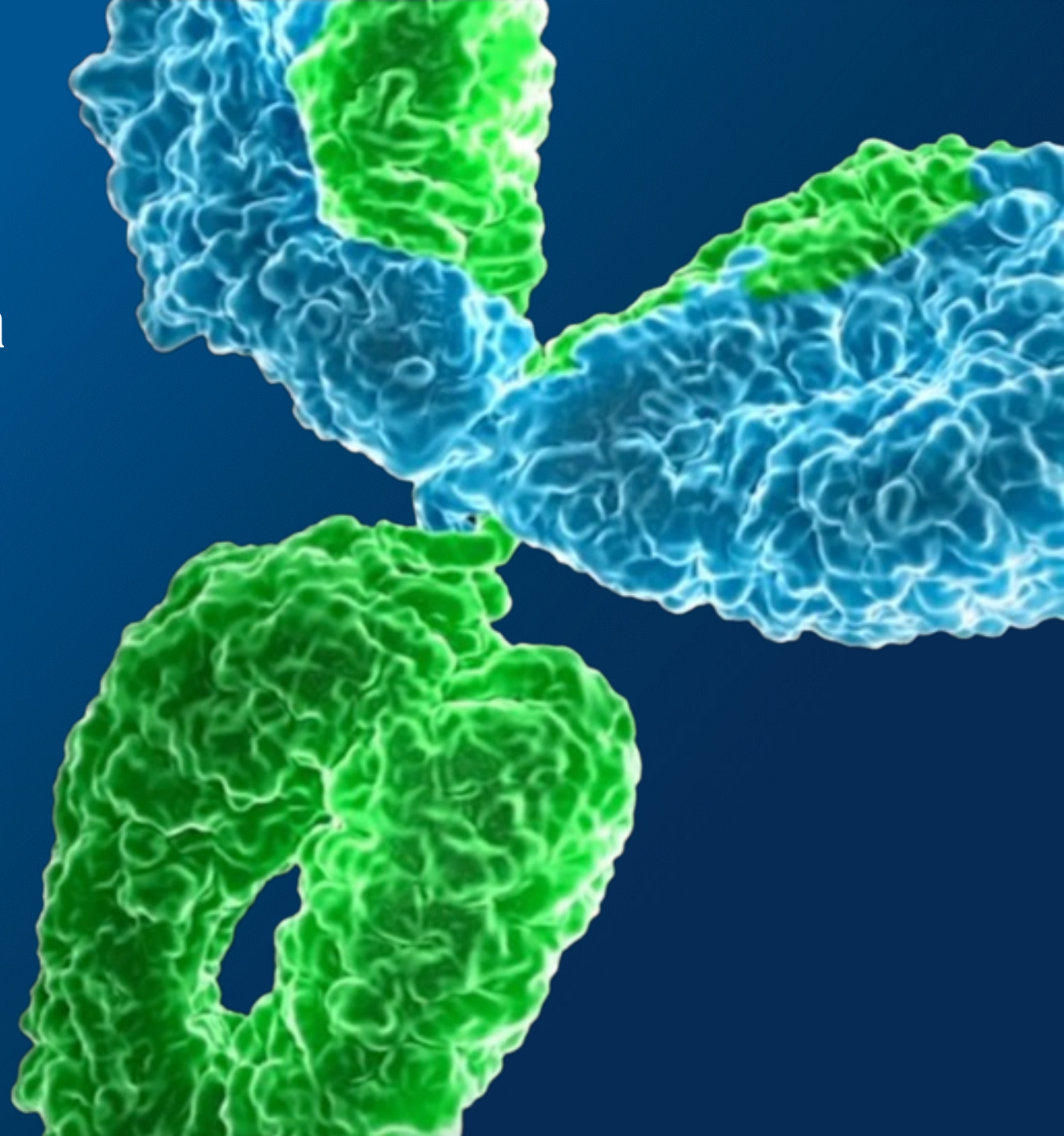
SUTRO BIOPHARMA

Luveltamab Tazevibulin, a Site Specific, Anti-Folate Receptor Alpha Hemiasterlin Conjugate



Hans-Peter Gerber, Ph.D.

March 13, 2024

World ADC Meeting, London, UK

Forward Looking Statements

This presentation and the accompanying oral presentation contain “forward-looking” statements that are based on our management’s beliefs and assumptions and on information currently available to management. Forward-looking statements include all statements other than statements of historical fact contained in this presentation, including information concerning our future financial performance, business plans and objectives, current and future clinical activities, timing, design and success of our ongoing and planned clinical trials and related data, updates and results of our clinical trials and related data, timing and success of our planned development activities, our ability to obtain and maintain regulatory approval, the potential opportunities and benefits of Luvelta and the Company's other product candidates and platform, financing plans, potential future milestone and royalty payments, competitive position, industry environment and potential market opportunities for Luvelta and the Company's other product candidates.

Forward-looking statements are subject to known and unknown risks, uncertainties, assumptions and other factors, including risks and uncertainties related to our cash forecasts, our and our collaborators’ ability to advance our product candidates, the receipt, feedback and timing of potential regulatory submissions, designations, approvals and commercialization of product candidates, the design, and timing and results of preclinical and clinical trials. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. These factors, together with those that may be described in greater detail under the heading “Risk Factors” contained in our most recent Annual Report on Form 10-K, Quarterly Report on Form 10-Q and other reports the company files from time to time with the Securities and Exchange Commission, may cause our actual results, performance or achievements to differ materially and adversely from those anticipated or implied by our forward-looking statements.

You should not rely upon forward-looking statements as predictions of future events. Although our management believes that the expectations reflected in our forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances described in the forward-looking statements will be achieved or occur. Moreover, neither we nor our management assume responsibility for the accuracy and completeness of the forward-looking statements. We undertake no obligation to publicly update any forward-looking statements for any reason after the date of this presentation to conform these statements to actual results or to changes in our expectations, except as required by law.

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.

Today's Agenda

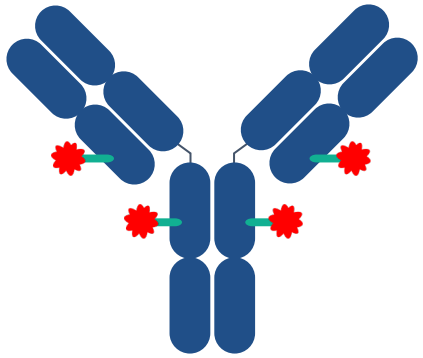
Luvelta: Clinical overview

- Platinum resistant ovarian cancer
- Endometrial cancer
- Pediatric CBF::Glis translocated AML

Impact of ADC Design on Safety and Efficacy

- ADC portfolio

Luvelta's Design Addresses Key ADC Limitations



Luvelta
FolRα Targeted ADC

Toxic Payload "Warhead"

DAR 4 hemiasterlin

- **High potency** tubulin inhibitor
- High **ICD** & **bystander** effect
- Low **P-gp** substrate

Linker

Utilizes proprietary, high value conjugation site to **improve linker stability** outside the tumor

FC Domain

FcγR-deficient ADCs mitigates off-target toxicity

Source: Li & Hallam, Mol Cancer Ther 2023;22:155–67

Off-target Liability	Platforms Affected		Cause	Countermeasure	
Eye toxicity	WT IgG1	Tubulin: MMAE, MMAF, DM1, DM4	FcγR on corneal cells, pinocytosis	**FcγR deficient mAbs**	• Sutro (FRα-Tubulin/Luvelta)
Neutro-penia	vc-linker & maleimide chemistry	Stochastic conjugation	Retro-Michael reaction & linker cleavage by bone marrow elastase	**Site-specific & click-chemistry**	• Sutro (Luvelta & TF-vc-Tubulin) • PFE (Her2-vc-Tubulin)

Luveltamab (STRO-02): Clinical Development

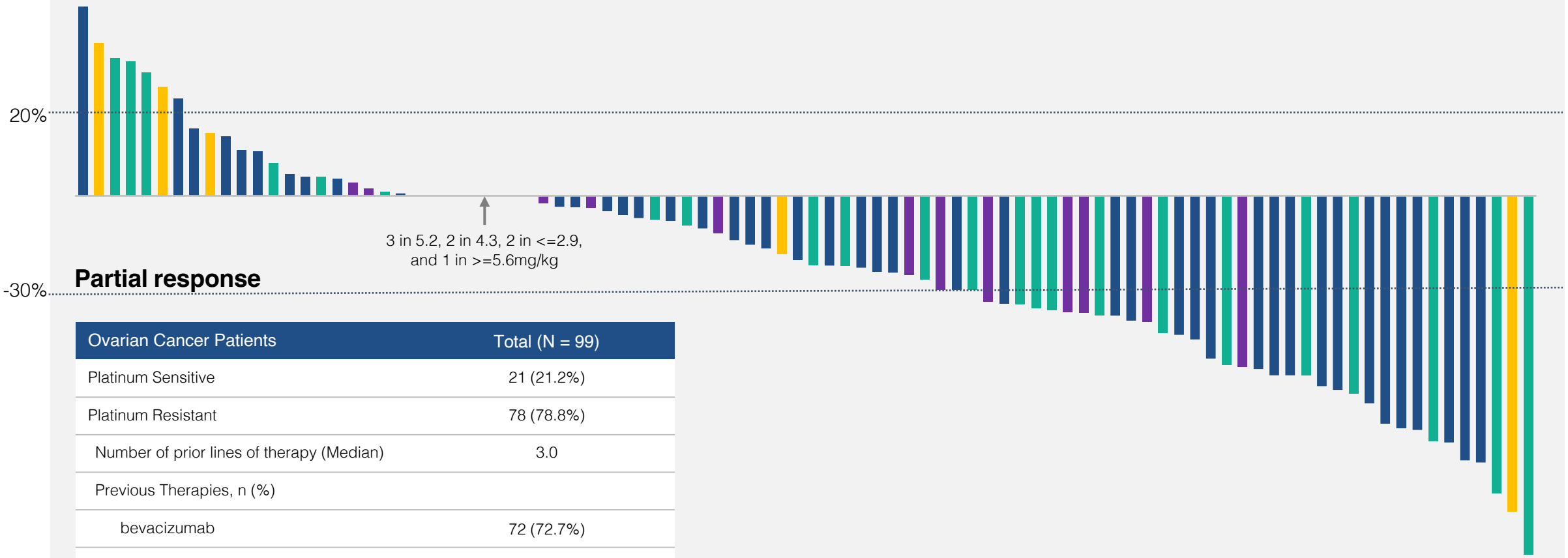
Therapeutic Area	Preclinical	Phase 1/1B	Phase 2/3	2024 Milestones
Ovarian Cancer	REFRαME|O1 Registrational Trial		→	• Part 1: LPI – 1H • Part 2: Open EU Sites– 2H
	Dose Escalation	Phase 1 program supported initiation of REFRαME|O1 trial		Complete
	Dose Expansion			Complete
	Plus G-CSF			Complete
	Combo w/ Bevacizumab		→	Continuing clinical development
Endometrial Cancer			→	Continuing clinical development
RAM AML	REFRαME|P1 Registration-enabling Trial		→	Initiate trial 1H
NSCLC			→	• IND 1H • Early signal: potentially 2H24–1H25

Sources: clinicaltrials.gov NCT05870748. Internal Sutro data on file.

→ Indicates trial enrolling or planned to begin enrolling

Anti-tumor Activity Demonstrated in Patients with Ovarian Cancer Across a Broad Dose Range

Maximum Reduction in Tumor Target Lesions in RECIST-Evaluable Patients (N=92 Evaluable)



Ovarian Cancer Patients	Total (N = 99)
Platinum Sensitive	21 (21.2%)
Platinum Resistant	78 (78.8%)
Number of prior lines of therapy (Median)	3.0
Previous Therapies, n (%)	
bevacizumab	72 (72.7%)
PARP Inhibitor	70 (70.7%)

Data as of Nov 8, 2023.

Starting dose, Q3W ≤ 2.9 mg/kg 4.3 mg/kg 5.2 mg/kg ≥ 5.6 mg/kg

SUTRO BIOPHARMA

Luvelta Demonstrated Compelling Anti-Tumor Activity and Tolerable Safety in Ovarian Cancer

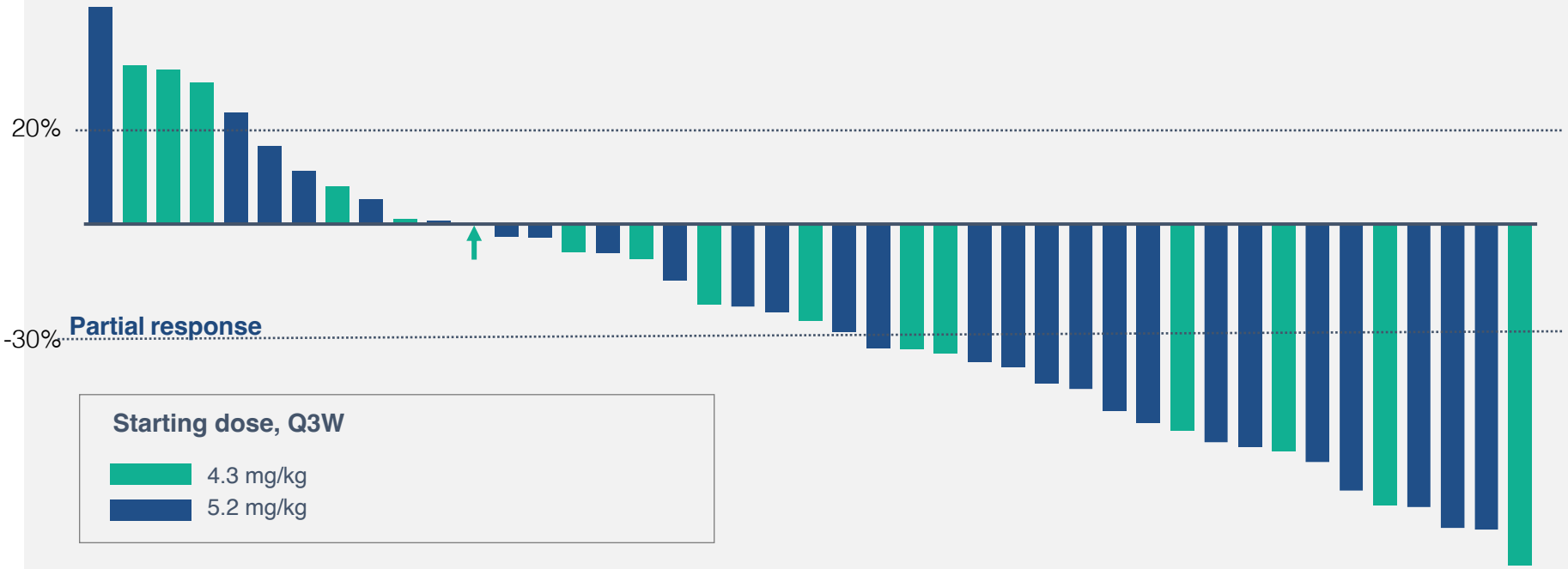
Phase 1: **Dose Escalation**		Phase 1: **Dose Expansion**	
Escalation	Combo w/ Bevacizumab	Signal Seeking	Plus G-CSF (Neutropenia Mgt)
N = 39	N = 18	N = 44	N = 16
✓ Optimal dose range	✓ Tolerable and active	✓ Established FolRα ≥25% PROC	✓ Reduced high-grade neutropenia

Aggregated Analysis of Ovarian Cancer Patients

Improved clinical outcome vs. SoC chemotherapy (historical)	Improved tolerability profile vs. SoC chemotherapy (historical)	Clinical benefit shown in unmet need low-medium expressing patients

Substantial Improvement over Chemotherapy (Historical Data) in Women with Platinum Resistant Ovarian Cancer (PROC) with TPS ≥ 25% at RPTD

Maximum Reduction in Tumor Target Lesions in RECIST-Evaluable Patients (N=43)



Luvelta

ORR = 28%

DOR = 5.7 months

PFS = 5.8 months

Historicial Chemo Data[1]

ORR = 12%

DOR = N/A

PFS = 4.4 months

Data as of Oct 18, 2023, TPS= tumor proportion score

Sources: 1. Moore KN, et al. Ann Oncol 2021; 32(6):757-765. 2. Jun 2023 ASCO oral presentation. “Luveltamab tazevibulin (STRO-002), an anti-folate receptor alpha (FolRα) antibody drug conjugate (ADC), safety and efficacy in a broad distribution of FolRα expression in patients with recurrent epithelial ovarian cancer (OC): Update of STRO-002-GM1 phase 1 dose expansion cohort (Selected PROC patients with TPS ≥ 25% (dose escalation, signal seeking and cohort with G-CSF)).

Luvelta Monotherapy Safety Profile has been Manageable, and is Characterized by Neutropenia, Arthralgia, and GI Adverse Events

TEAEs (N=99)		
Preferred Term	All Grade Incidence ≥35%	Grade 3+
Patients reporting at least one event	99 (100.0%)	86 (86.9%)
Neutropenia*	69 (69.7%)	64 (64.6%) ‡
Nausea	69 (69.7%)	1 (1.0%)
Fatigue	63 (63.6%)	12 (12.1%) ‡
Arthralgia	57 (57.6%)	16 (16.2%) ‡
Constipation	53 (53.5%)	2 (2.0%)
Decreased appetite	45 (45.5%)	0
Abdominal pain	44 (44.4%)	6 (6.1%)
Neuropathy**	44 (44.4%)	7 (7.1%)
Anaemia	39 (39.4%)	11 (11.1%)‡
Aspartate aminotransferase increased	38 (38.4%)	2 (2.0%)
Vomiting	35 (35.4%)	3 (3.0%)

SAEs (N=99)		
Preferred Term	All Grade Incidence ≥3 Subjects	Grade 3+
Patients reporting at least one event	99 (100.0%)	86 (86.9%)
Abdominal pain	4 (4.0%)	3 (3.0%)
Dehydration	4 (4.0%)	4 (4.0%)
Febrile neutropenia	4 (4.0%)	4 (4.0%)
Small intestinal obstruction	4 (4.0%)	4 (4.0%)
Acute kidney injury	3 (3.0%)	2 (2.0%)
Anaemia	3 (3.0%)	3 (3.0%)
Constipation	3 (3.0%)	2 (2.0%)
Pneumonia	3 (3.0%)	2 (2.0%)

* Neutropenia included the following preferred terms: neutropenia, febrile neutropenia, and neutrophil count decreased.
** Neuropathy included the following preferred terms: neuropathy peripheral and peripheral sensory neuropathy.
‡ Most common Grade 3+ TEAEs

Data as of Nov 8, 2023
Source: Internal Sutro data on file

Neutropenia

- Primarily uncomplicated (febrile neutropenia < 5%)
- Well managed with G-CSF usage
- Led to discontinuation in 1.5% of patients

Arthralgia

- Managed conservatively
- Led to discontinuation in 1.5% of patients

Peripheral Neuropathy

- Expected event with microtubule inhibitor ADCs (pre-existing and on study)
- Actively managed with protocol-specified conservative management
- Led to discontinuation in 2.9% of patients

1 subject experienced grade 5 event: Probably luvelta related

- 1 death was reported as resulting from febrile neutropenia with concurrent SAEs of septic shock, pancytopenia, and acute respiratory failure; all assessed as related to luvelta

5 subjects experienced grade 5 events: Unrelated to luvelta

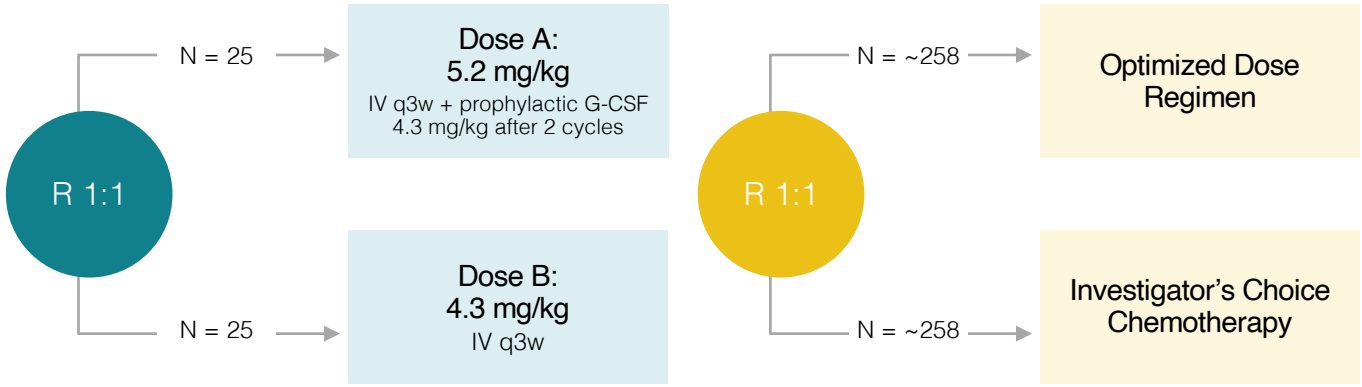
- 3 deaths were attributed to disease progression
- 1 death was reported as Death NOS; assessed as unrelated to luvelta
- 1 death was reported as resulting from a pulmonary infection; assessed as unrelated to luvelta

REFRαME-O1 Ongoing Pivotal Trial in Platinum Resistant Ovarian Cancer

REFRαME|O1

Eligibility

- **Platinum Resistant Ovarian Cancer** to 1st platinum or progression ≤ 6m to last platinum
- 1-3 prior lines
- ECOG PS 0-1
- Exclude primary platinum refractory
- FolR1 expression ≥25%



Key Endpoints

- Final analysis for full approval: PFS, OS
- Interim analysis planned to support accelerated approval: ORR, DOR
- Safety, QoL, PK

PRV: Pediatric Review Voucher
Sources: clinicaltrials.gov NCT05870748. ENGOT/GOG-OV79/GOG-3086 , Internal Sutro data on file.

Luvelta Has the Potential to Treat 8 out of 10 Women with Ovarian Cancer With FolRα Expression ≥25%

Treatment Eligibility is Driven by FolRα Biomarker Test

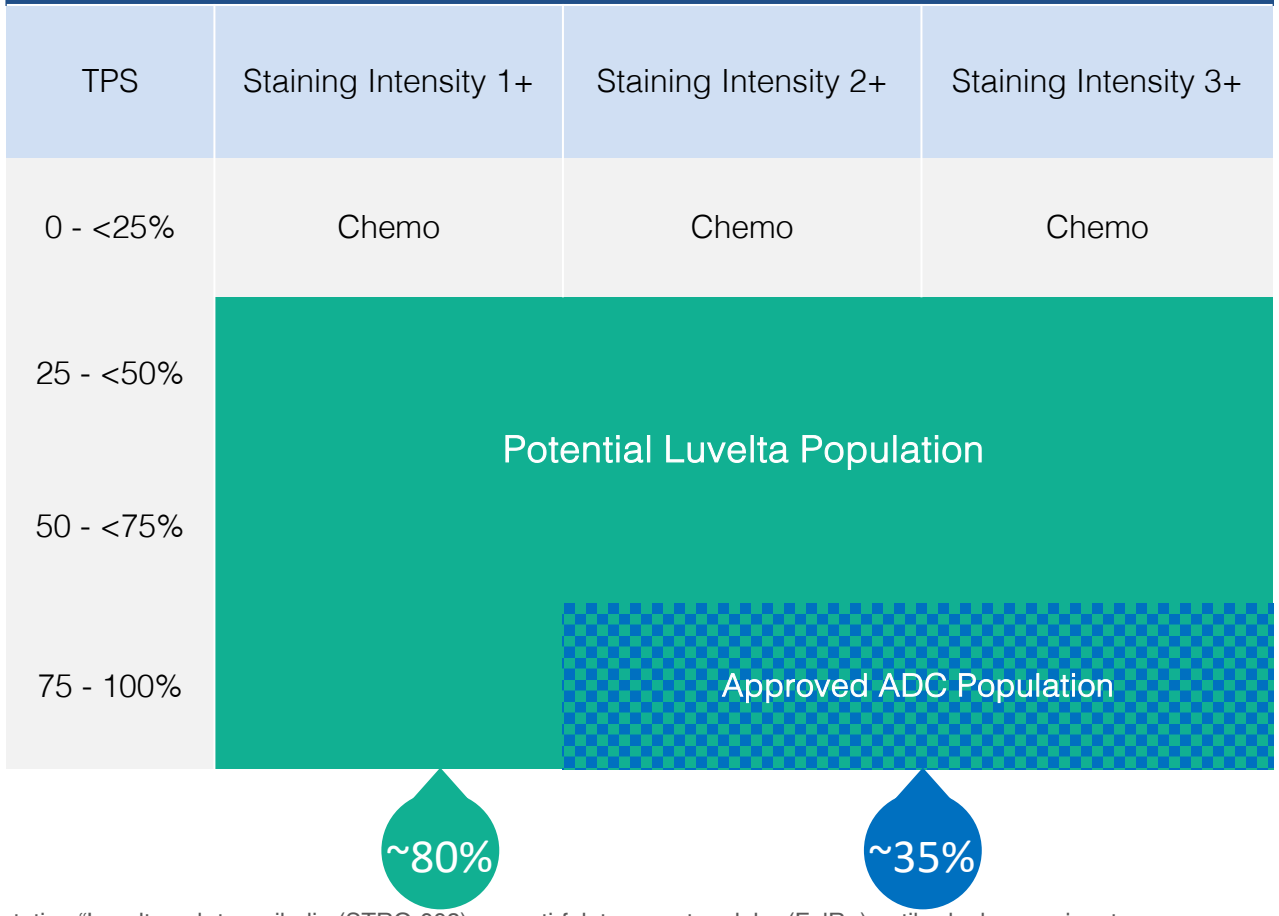
Luvelta has demonstrated clinical activity in PROC patients with **FolRα ≥25%**

Both Luvelta and FDA-approved ADC test patient FolRα levels via Ventana validated assay

Due to high frequency of testing of FolRα in OC, patient expression level may be known prior to developing platinum resistance

Luvelta addresses low and medium FolRα expression (≥25% TPS with any intensity) that currently receive chemotherapy, while approved ADC is limited to high expressing FolRα (≥75% TPS with PS 2+, 3+)

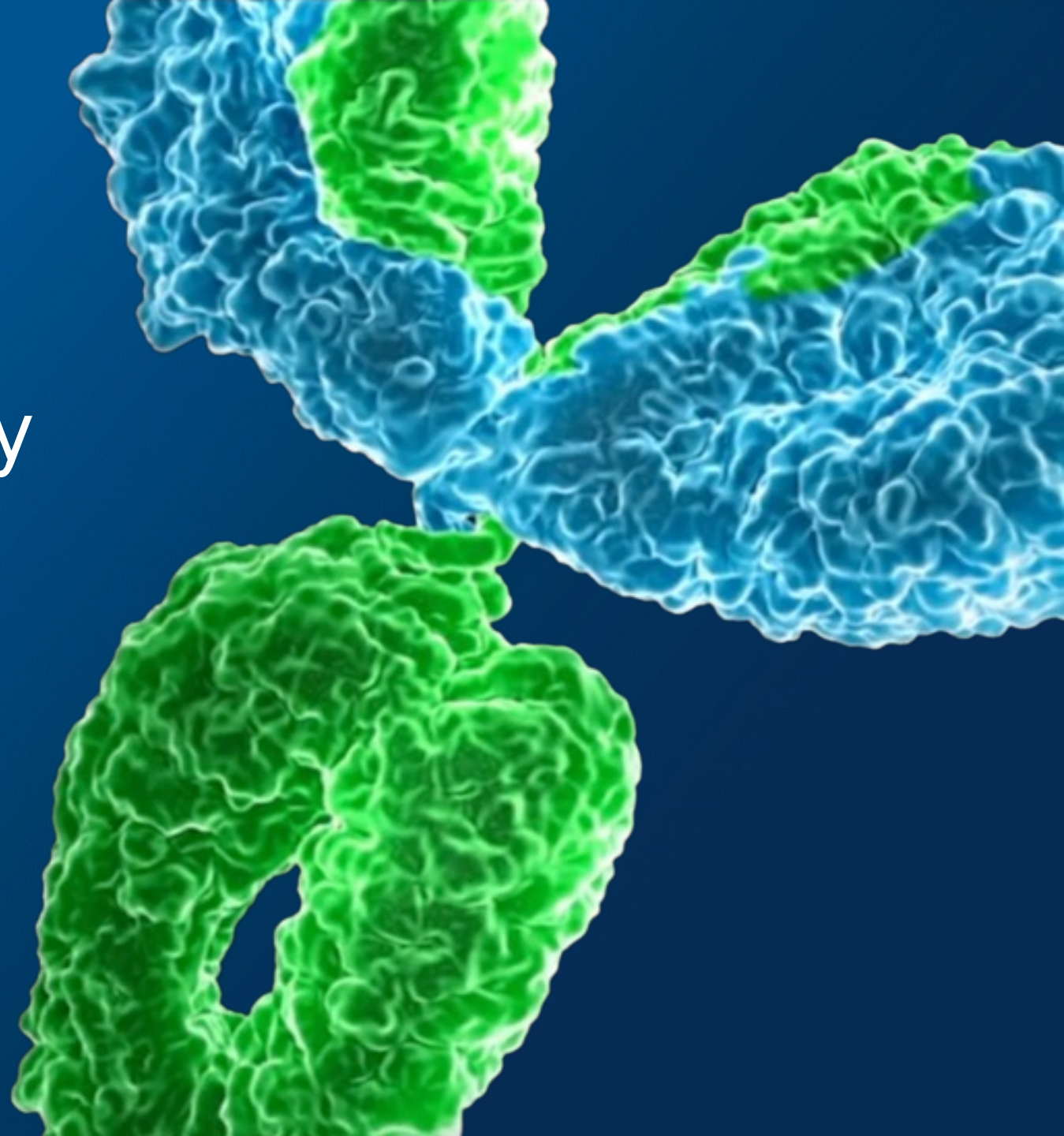
Comparison of Potential Luvelta Population with Approved ADC Population



Sources: 1. ImmunoGen Third Quarter 2023 Financial Results, Nov 2023. 2. Jun 2023 ASCO oral presentation "Luveltamab tazevibulin (STRO-002), an anti-folate receptor alpha (FolRα) antibody drug conjugate (ADC), safety and efficacy in a broad distribution of FolRα expression in patients with recurrent epithelial ovarian cancer (OC): Update of STRO-002-GM1 phase 1 dose expansion cohort.".

SUTRO BIOPHARMA

Cohort with G-CSF: Designed to Effectively Manage Tolerability

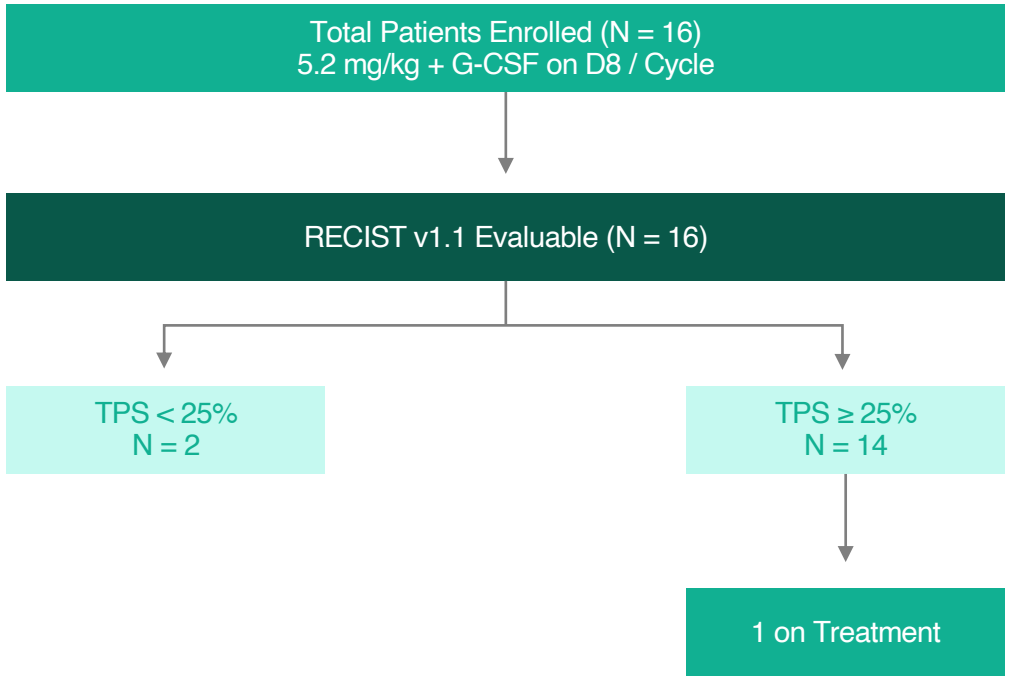


Safety Cohort Designed to Mitigate High-grade Neutropenia at Higher Dose of 5.2 mg/kg with Prophylactic G-CSF Support

Patient Baseline Characteristics

Ovarian Cancer Patients	Total (N = 16)
Median age, years (range)	66 (36–86)
Median time since diagnosis, years (range)	2.3 (1.1–6.6)
Number of prior lines of therapy	
Median (Range)	2.0 (2-3)
Previous Therapies, n (%)	
Bevacizumab	11 (69%)
PARP Inhibitor	11 (69%)

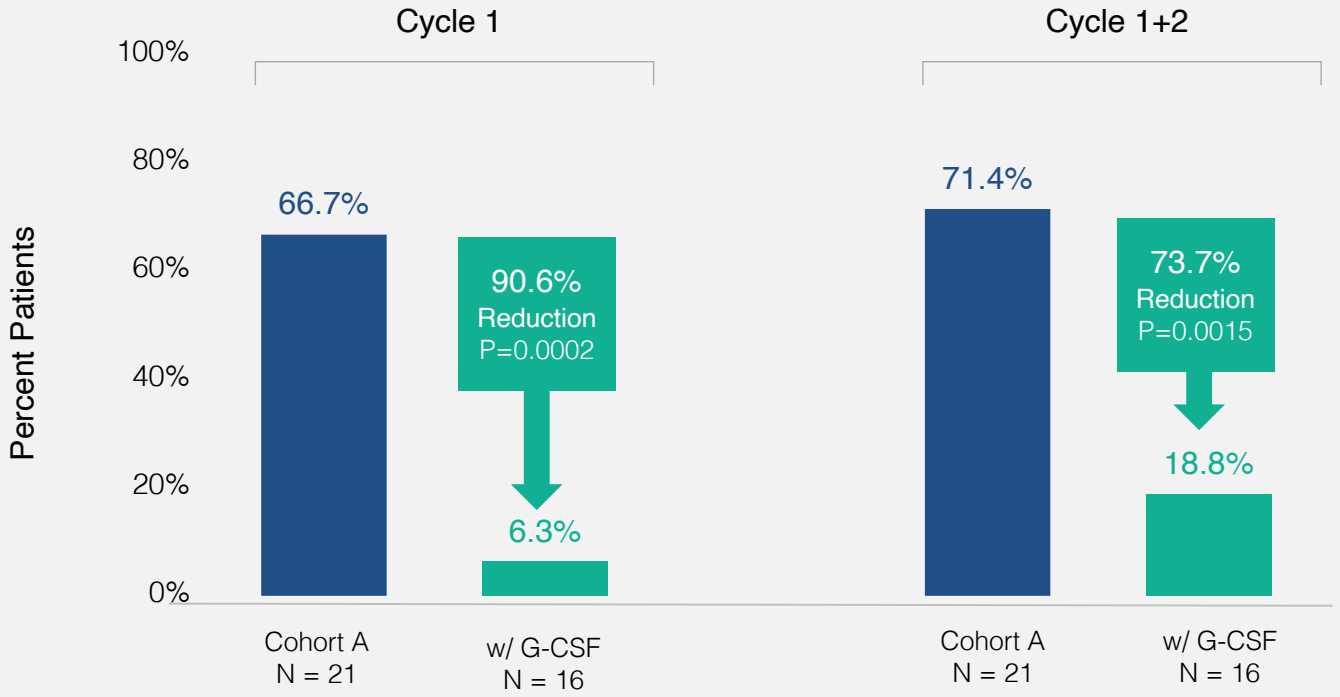
Patient Status



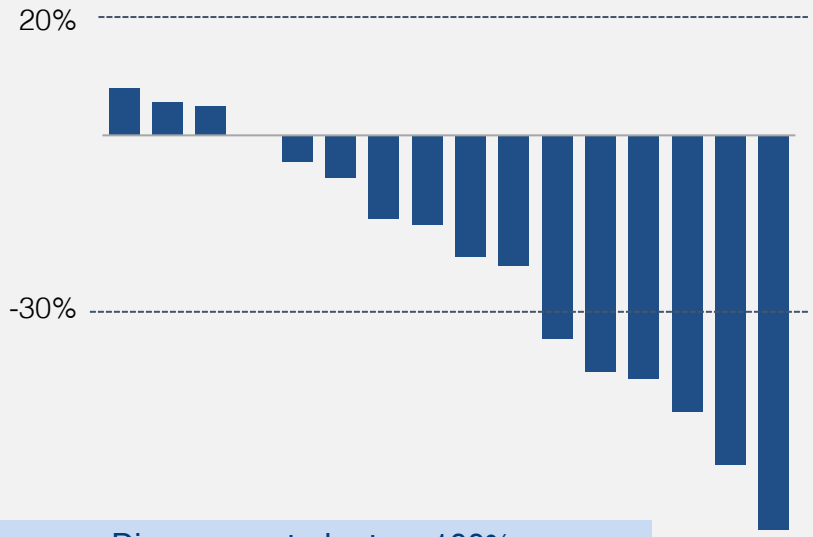
Data as of Nov 08, 2023 **Source**: Internal Sutro data on file

Effective Reduction of Neutropenia with Use of Prophylactic G-CSF on Day 8 with 5.2mg/kg Dose

Grade 3+ Neutropenia Cohort A[1] vs. Cohort with G-CSF[2]



Maximum Reduction in Tumor Target Lesions (N=16)



Disease control rate = 100%
(best response)

Preferred Term: G3+ TEAE	Cohort A 5.2 mg/kg (N=21)	Cohort + G-CSF 5.2 mg/kg (N=16)
Neutropenia	76.2%	37.5%

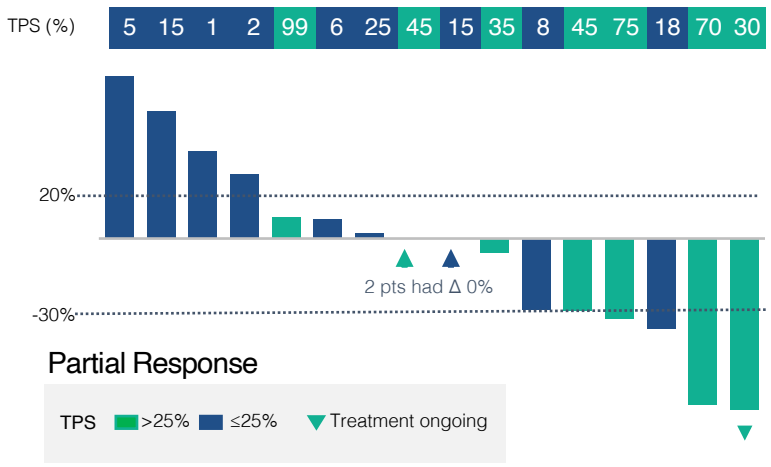
1 - Cohort A patients dosed with Luvelta 5.2mg/kg.
2 - Cohort with G-CSF patients started at Luvelta 5.2mg/kg + prophylactic pegfilgrastim on Day 8
Data as of Nov 08, 2023 **Sources**: Sutro Corporate Presentation Nov 2023. Internal Sutro data on file.

Luvelta: Demonstrated Compelling Anti-Tumor Activity and Manageable Safety Profile In Lower and/or Variable FolRα Expression Tumors

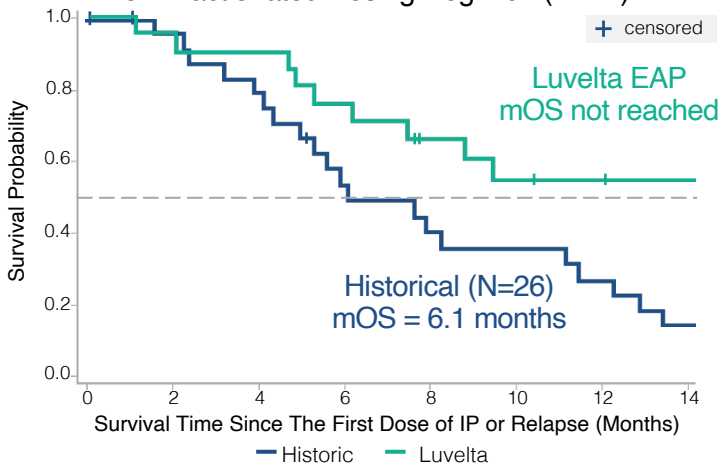
Additional Indications

Endometrial	RAM AML[1]	NSCLC
N = 17	N = 25	Preclinical
✓ Evidence of anti-tumor activity ✓ No new safety signals observed ✓ Continuing clinical development	✓ Meaningful clinical responses, including complete remission and prolonged overall survival ✓ Well tolerated and can be given as out-patient ✓ Positioned for registration-enabling trial	✓ Single dose and combination with PD-1 blockade demonstrated anti-tumor activity ✓ IND 1H 2024

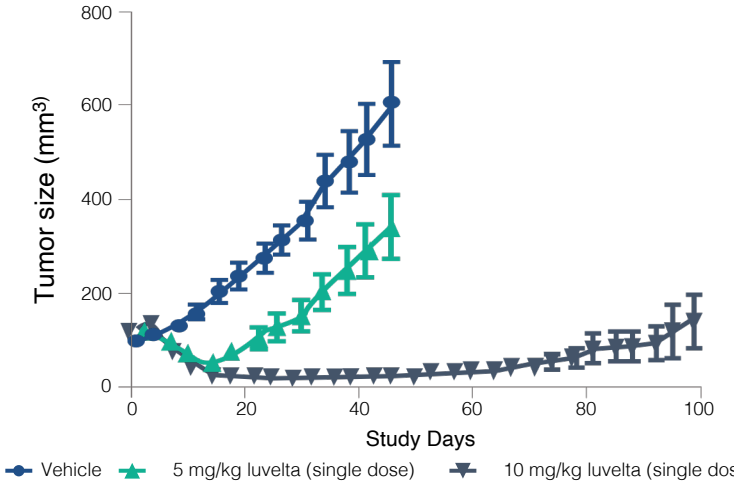
Maximum Reduction in Target Lesions*



Overall Survival for Children who Received Luvelta as Non-Fractionated Dosing Regimen (N=21)



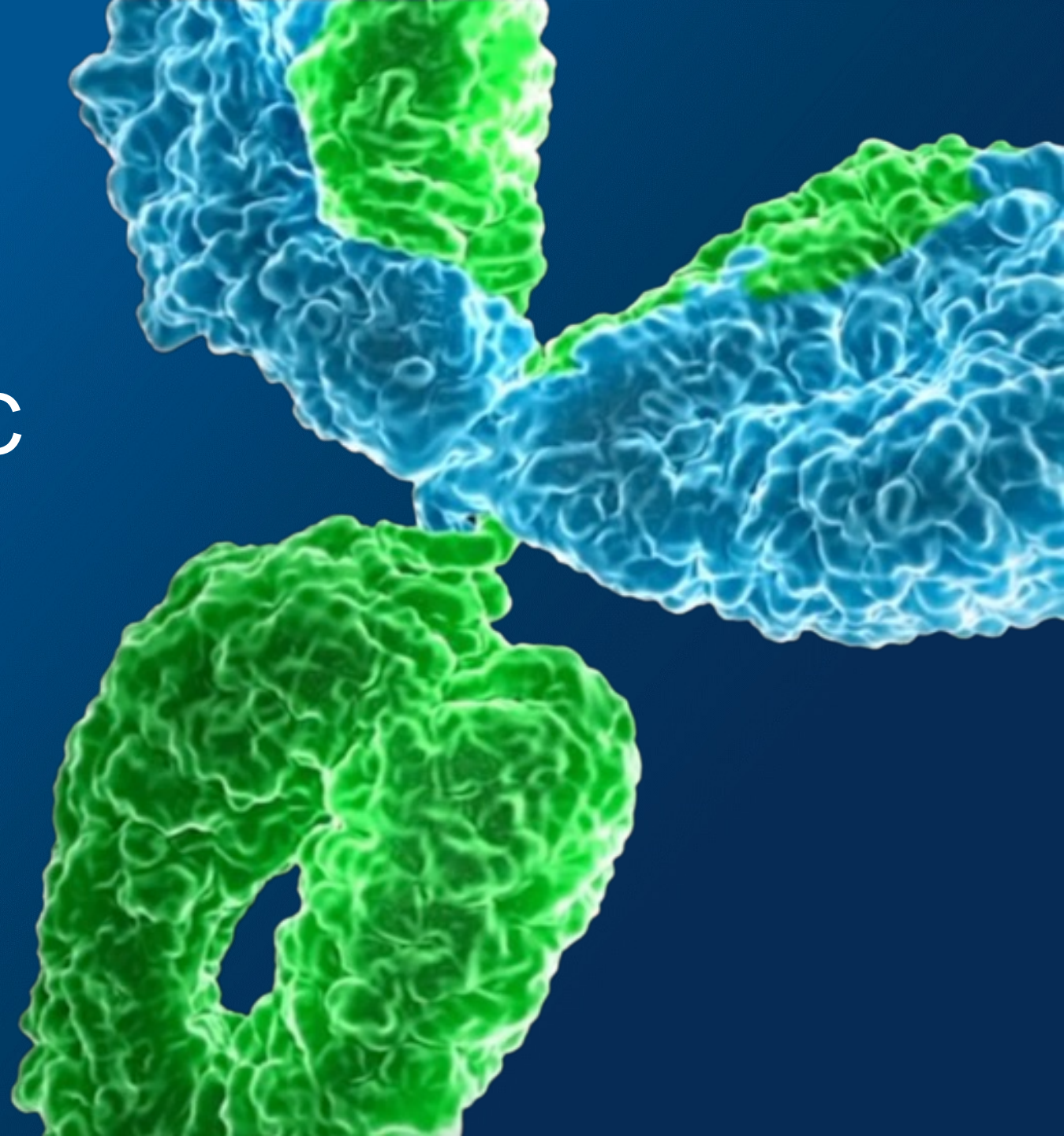
NSCLC PDX model with single dose Luvelta monotherapy



Data cutoff: 04 August 2023. *n=16 response evaluable patients. PR, partial response; TPS, tumor proportion score. 1 - These data were generated by the treating physicians and collected and enabled for presentation by Sutro. **Endometrial source:** Oct 2023 ESMO mini-oral presentation "741MO - Luveltamab tazevibulin (STRO-002), an anti-folate receptor alpha (FolRα) antibody drug conjugate (ADC), demonstrates clinical activity in recurrent/progressive epithelial endometrial cancer (EEC): STRO-002-GM1 phase I dose expansion." **RAM AML source:** Dec 2023 ASH poster "Anti-leukemic Activity of Luveltamab Tazevibulin (LT, STRO-002), a Novel Folate Receptor-α (FR-α)-targeting Antibody Drug Conjugate (ADC) in Relapsed/Refractory CBFA2T3::GLIS2 AML." **NSCLC source:** Internal Sutro preclinical data on file.

SUTRO BIOPHARMA

Exatecan Based ADC Portfolio

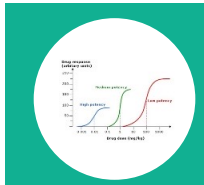


Robust Pipeline of Product Candidates Designed to Expand Patient Benefit in Areas of High Unmet Medical Need

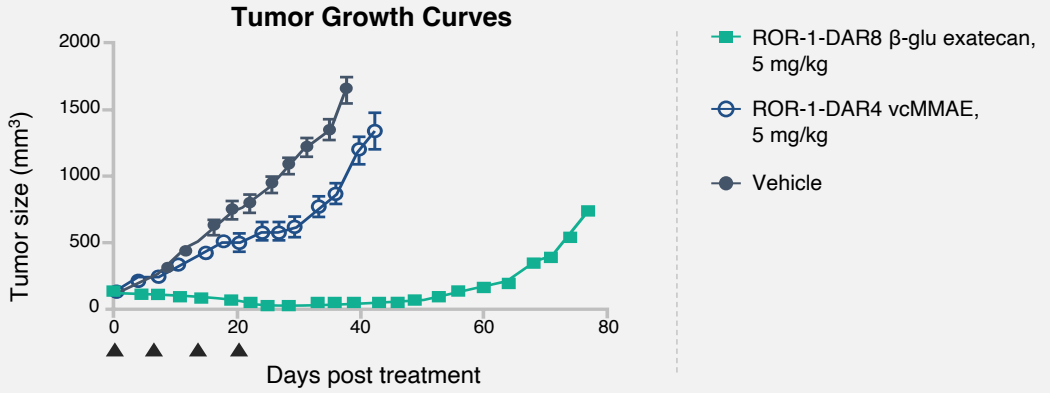
PROGRAM	MODALITY/TARGET	INDICATION	DISCOVERY	PRECLINICAL	PHASE 1/1B	PHASE 2/3	WORLDWIDE OR GEOGRAPHIC PARTNER
SUTRO-LED PROGRAMS							
Luveltamab tazevibulin (Luvelta, STRO-002)	FolRα Antibody-Drug Conjugate (ADC)	Ovarian Cancer			*Fast Track Designation*		天士力生物 TASLY BIOPHARMA (Greater China Rights)
		Ovarian Cancer (bevacizumab combo)					
		Endometrial Cancer					
		CBF/GLIS2 Pediatric AML			*Orphan Drug & Rare Pediatric Disease Designation*		
		Adenocarcinoma, NSCLC					
STRO-001[1]	CD74 ADC	B-cell Malignancies			*Orphan Drug Designation*		BioNova Pharma 博纳医药 (Greater China Rights)
STRO-003	ROR1 ADC	Solid Tumors & Hematological Cancers					
STRO-004	Tissue Factor ADC	Solid Tumors					
PARTNER PROGRAMS							
VAX-24	24-Valent Conjugate Vaccine	Invasive Pneumococcal Disease					VAXCYTE protect humankind
VAX-31	31-Valent Conjugate Vaccine	Invasive Pneumococcal Disease					
MK-1484	Selective IL-2 Agonist	Advanced or Metastatic Solid Tumors					MERCK
Undisclosed Programs	Immunostimulatory ADCs (iADCs)	Cancers			*Multiple Programs*		astellas

1. Phase 1 dose escalation has completed in the U.S., and clinical development is ongoing in Greater China led by BioNova

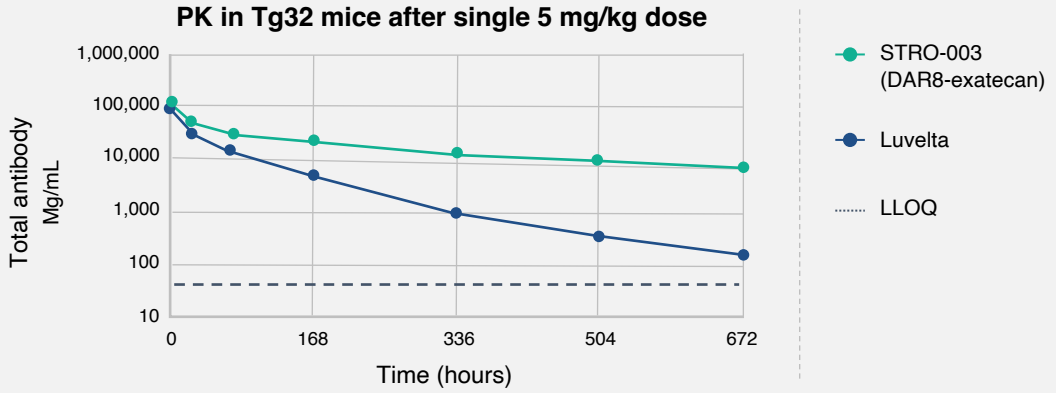
STRO-003: A Site Specific, DAR8, Exatecan ADC Targeting ROR-1

ADC Liability	Platforms Affected		Cause	Countermeasure	
 Interstitial lung disease	WT IgG1	DXd, Exatecan	FcγR on alveolar macrophages	FcγR deficient mAbs	• Sutro (ROR1 & TF-Exatecan, STRO-003/-004)
 Potency	**WT IgG1**	DXd, Exatecan	Lower potency than tubulin or DNA damage payloads	High DAR Exatecan ≥ 8	• Sutro (STRO-003)

STRO-003 Anti-Tumor Activity in Breast Cancer Model



Pharmacokinetics



Source: Data compiled from multiple studies; growth of vehicle groups identical.

ROR1 DAR8-Exatecan ADC Displays Enhanced Therapeutic Index

ROR1- ADC	MED = Minimum Efficacious Dose (single dose regressions in Xenografts)	HNSTD in NHPs (Q3 wks x 2 /3)	Clinical Adverse Events
STRO-003 (β-glu-exatecan, DAR8)	5-10 mg/kg	> 45 mg/kg[#]	Target IND: H2/24
Zilovertamab-vedotin (ZV) (vcMMAE, DAR4)	3 mg/kg (NHL)	~ 6 mg/kg	• Neutropenia 2.5mg/kg, • Peripheral Neuropathy • $T^{1/2}$= 2.5 d

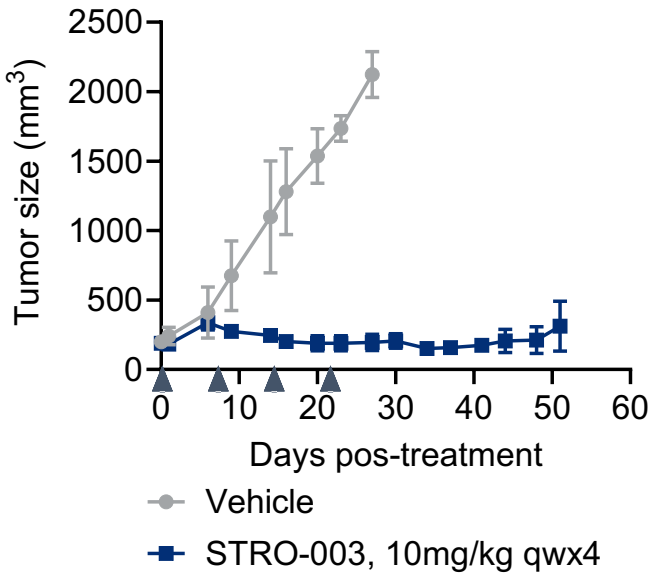
Clinical Adverse Events ZV

- Neutropenia 2.5mg/kg, $T^{1/2}$= 2.5 d
- Peripheral Neuropathy

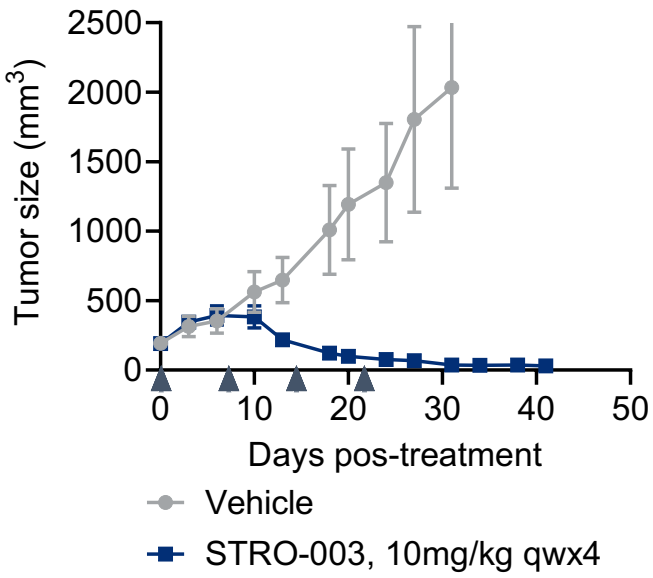
Sutro 2023 data on file

STRO-003 Induces Complete Regression of Human NSCLC PDX Models Expressing Low and/or Heterogeneous ROR1 Antigen Levels

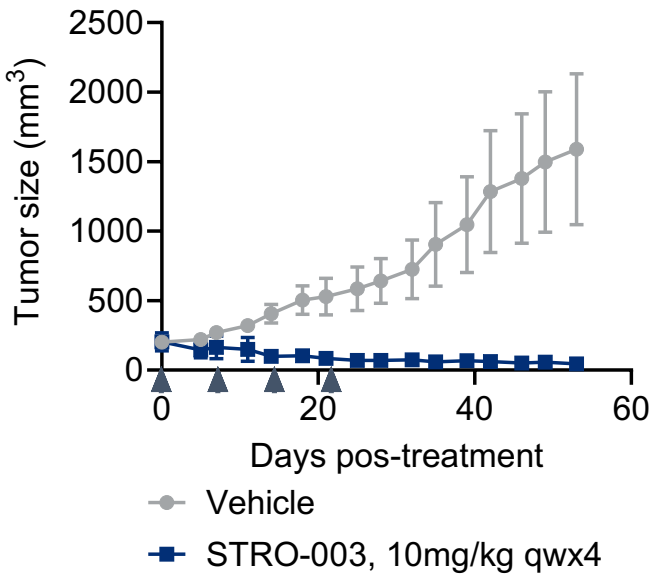
ROR1 moderate

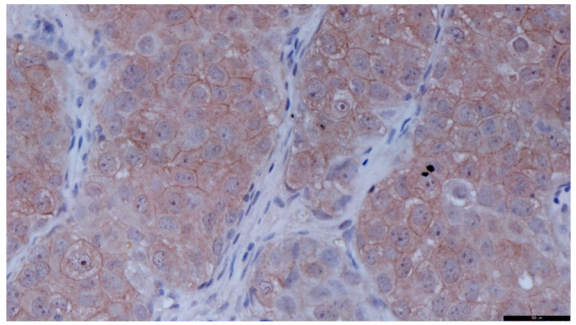


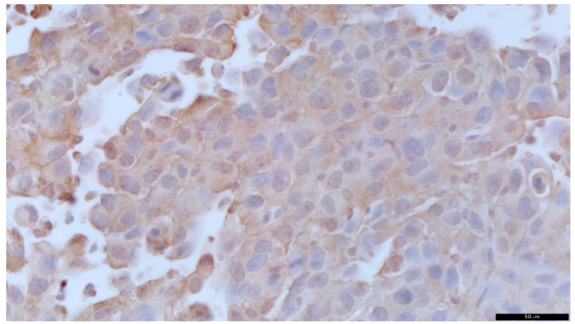
ROR1 moderate

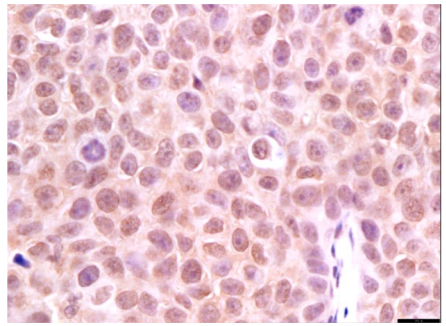


ROR1 low





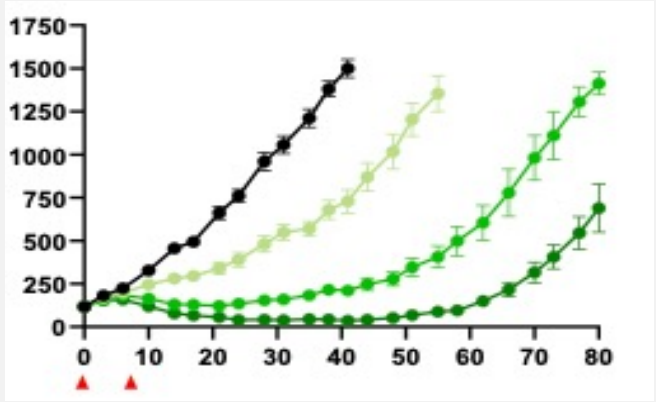




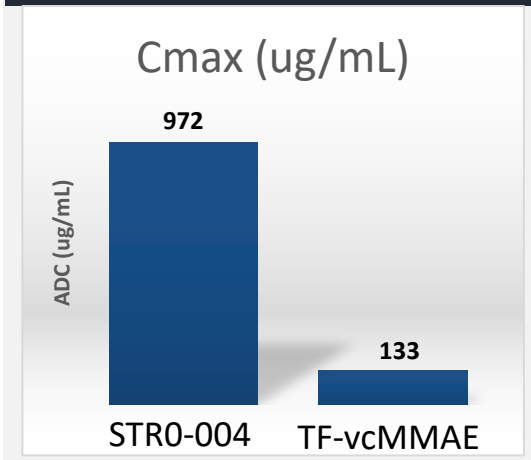
STRO-004: A Site Specific, DAR4, Exatecan ADC Targeting TF

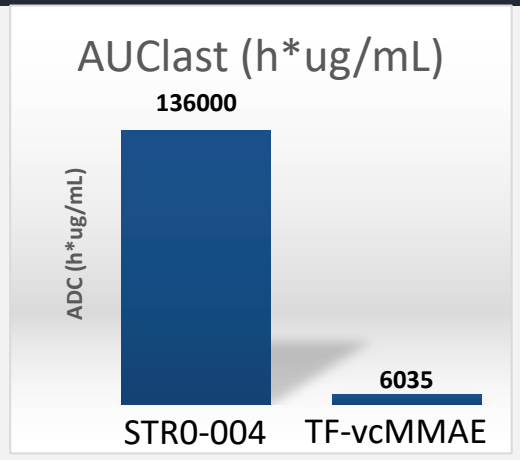
ADC Liability	Platforms Affected		Cause	Countermeasure	
Interstitial lung disease	WT IgG1	DXd, Exatecan	FcγR on alveolar macrophages	**FcγR deficient mAbs**	• Sutro (ROR1 & TF-Exatecan, STRO-003/-004)
Eye Tox	WT IgG1	Tubulin: MMAE, MMAF, DM1, DM4	**Off-Target** - FcγR on corneal cells **On-Target** - TF on corneal cells	**FcγR deficient mAbs & Exatecan**	• Sutro (STRO-002/ -004)

STRO-004 Anti-Tumor Activity in Breast Cancer Model

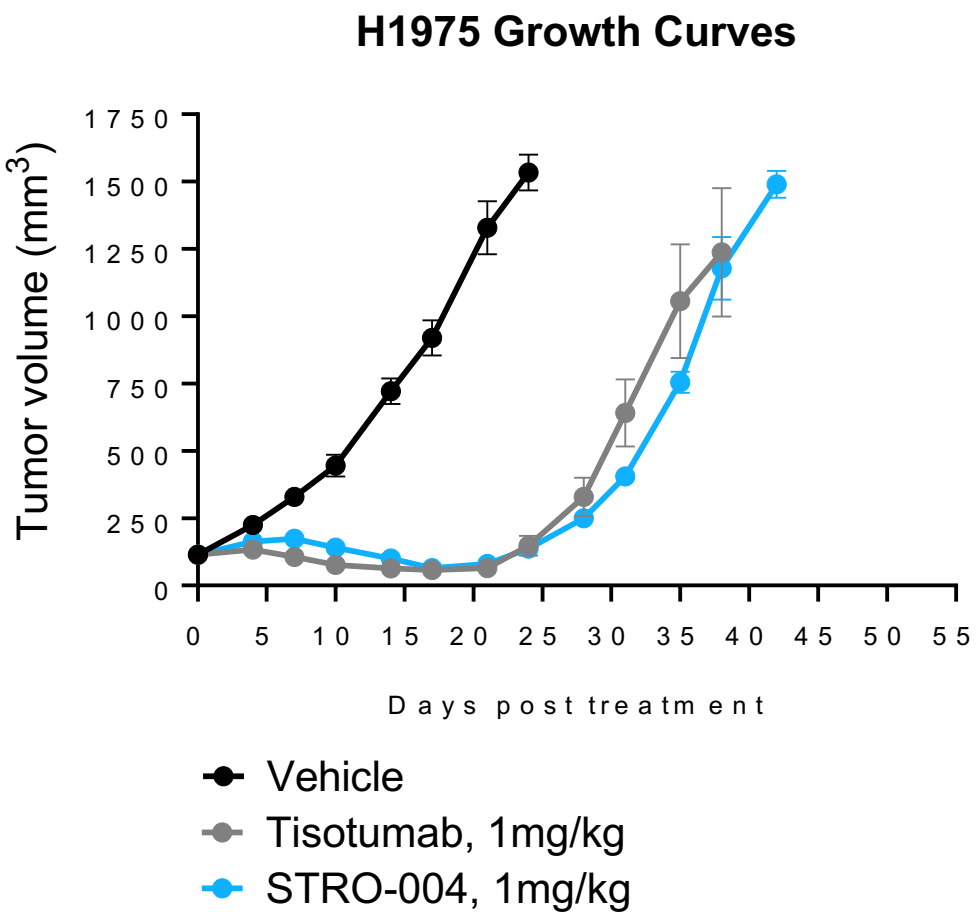


Pharmacokinetics (NHP) at HNSTD





STRO-004 Displays Similar Potency to Tisotumab Vedotin (Tivdak), But Much Improved Safety in Cynos



Tissue Factor (TF) ADC	Minimum Efficacious Dose (inducing Single dose regression in Xenografts)	HNSTD in NHPs (Q3 wks x 2/3)
STRO-004 (beta-glu-Extecan, DAR4)	1 mg/kg	> 30 mg/kg#
Tivdak (vcMMAE, DAR4)	1 mg/kg	~ 5 mg/kg *

Clinical Adverse Events Tivdak:

- Ocular tox (>60%)
- Bleeding (42-60%)
- Peripheral Neuropathy (42 %),
- ILD

*Breij & Parren, Can Res, 2014

Sutro. 2023 data on file

Biology is the Foundation for Therapy: Future ADC Development

On-target Activity Improve-ments	ADC Potency	Immunogenic Cell Death Induction	Resistance to Top1/Exatecan
Dual Conjugate*	✓	✓	✓
DAR ≥ 8*	✓	✓	✓

*Unique advantage of non-natural amino acid incorporation by Cell-free XpressCF®

Luvelta
FolRα-targeting ADC:
A Pipeline-in-a-Drug
Opportunity

Global REFRαME-O1
Registrational Trial
Well Underway;
Potential to be 1st
Therapy for Women with
Low/Medium FolRα
Expression

Next-Generation
ADCs Fueled
by Proven
Cell-free XpressCF®
Technology and
Partnership Model

Acknowledgements

We thank the patients who participated in the study, their families, and the investigators and clinical research staff from the study centers

Clinical Leads
Ana Oaknin, Vall d'Hebron, Barcelona, Spain (EC)
Wendel Naumann, Charlotte, NC
Bradley Monk, University of Arizona, AZ (OVCA)

Sutro Clinical
Anne Borgman
Craig Berman
Diana Landa
Greet Heremans
Kris Treanor

CMC
Judy Hsii
Upstream Process Development
Downstream Process Development
Analytical Development
MSAT Team
Manufacturing Team

SMT
Jane Chung
David Pauling
Venkatesh Srinivasan
Nicki Vasquez
Bill Newell

R&D
Alice Yam
Gang Yin
Werner Rubas
Guifen Xu
Brian Vuillemenot
Dan Calarese
Helena Kiefel
Adam Galan
Krishna Bajjuri
Xiaofan Li
Jeff Hanson
Miao Wen
Cuong Tran
Amandeep Gakhal