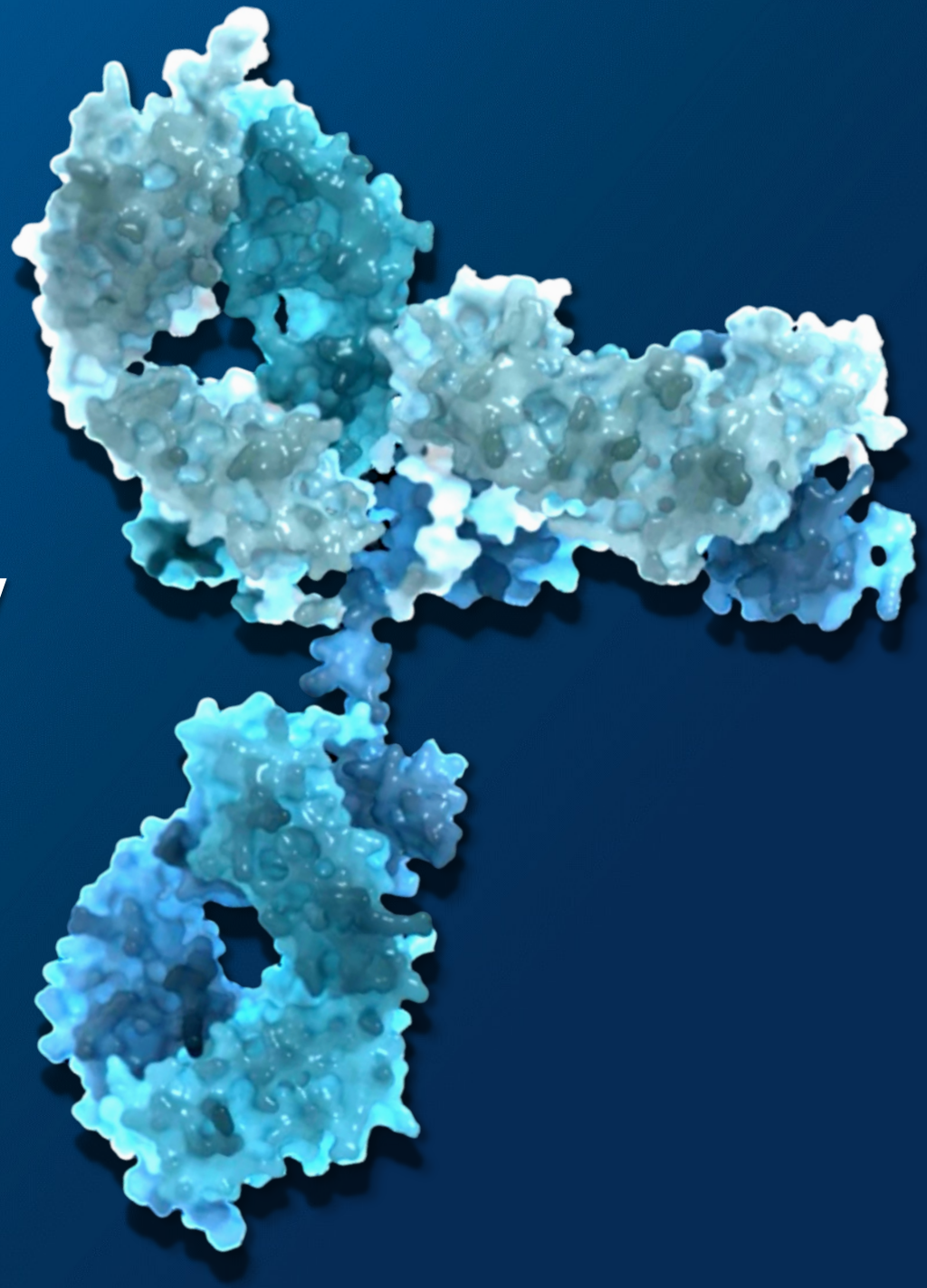
SUTRO BIOPHARMA

Science Designed to Provide Endless Possibility



July 2024

Sutro Biopharma
NASDAQ: STRO

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; anticipated preclinical and clinical development activities, including enrollment and site activation; timing of announcements of clinical results, trial initiation, and regulatory filings; outcome of regulatory decisions; our expectations about our cash runway; potential benefits of luvelta and our other product candidates and platform; potential expansion into other indications and combinations, including the timing and development activities related to such expansion; potential growth opportunities, financing plans, potential future milestone and royalty payments, competitive position, industry environment and potential market opportunities for our 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 and the design, timing and results of preclinical and clinical trials and our ability to fund development activities and achieve development goals. 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.

Next-Generation ADCs and Biologics, Transforming Science for Patients

Proven Cell Free Discovery and Manufacturing Platform Driving Three Significant Opportunities

Luvelta

Luvelta pipeline-in-a-drug potential with two registrational trials ongoing and multiple follow-on opportunities

Pipeline

Emerging pipeline of **next-generation ADCs**

Partnerships

Partnerships across multiple modalities have generated ~$940 million in funding, with ~$3 billion in potential future milestones plus royalties

Sutro Pipeline Drives Broad Potential with Multiple Near-Term Catalysts

Luvelta FRα-targeting ADC with Two Complementary Registrational Trials

Ovarian Cancer (Fast Track Designation)

- Registrational study underway
  - REFRαME Part 1 – Enrollment Complete
- Bevacizumab-luvelta combo
  - Enrollment of expansion cohort expected to conclude by mid-2024
  - Data expected 1H 2025

CBF/GLIS2 Pediatric AML (Orphan Drug & Rare Pediatric Disease Designation)

- Registrational study planned to start 2H 2024

Additional Luvelta Opportunities and Next-Generation ADC Pipeline

Luvelta for Non-Small Cell Lung Cancer

- Phase 2 first patient planned to enroll for 2H 2024
- Initial data expected 1H 2025

Luvelta Additional Indications

- Endometrial cancer – evaluating patient expansion through IST

STRO-004 (Tissue Factor-targeting ADC)

- Phase 1 IND targeted 2025

Additional Pre-Clinical Programs with 3 additional INDs expected in the next 3 years

Partnerships Provide up to ~$3 Billion Potential Future Milestones plus Royalties

VAXCYTE protect humankind	Blackstone	MERCK	IPSEN	astellas	TASLY
Phase 2/3 vaccines for invasive pneumococcal disease	Blackstone purchase of 4% royalties on potential future net sales of Vaxcyte PCV products	Phase 1 IL-2 cytokine derivative for cancer	STRO-003 (ROR1 ADC) preclinical program for solid tumors and hematological malignancies	Preclinical immunostimulatory ADCs	Exclusive license to luvelta in Greater China
0.7M shares + up to $60M in milestones + WW royalties on potential non-PCV future product candidates	Up to $250M in potential payments tied to various return thresholds	Up to ~$500M in milestones + WW royalties	Up to ~$824M in milestones + WW royalties	Up to ~$423M in milestones per product candidate + WW royalties + U.S. profit sharing option	Up to ~$355M in milestones + 10-year royalties on sales in Greater China

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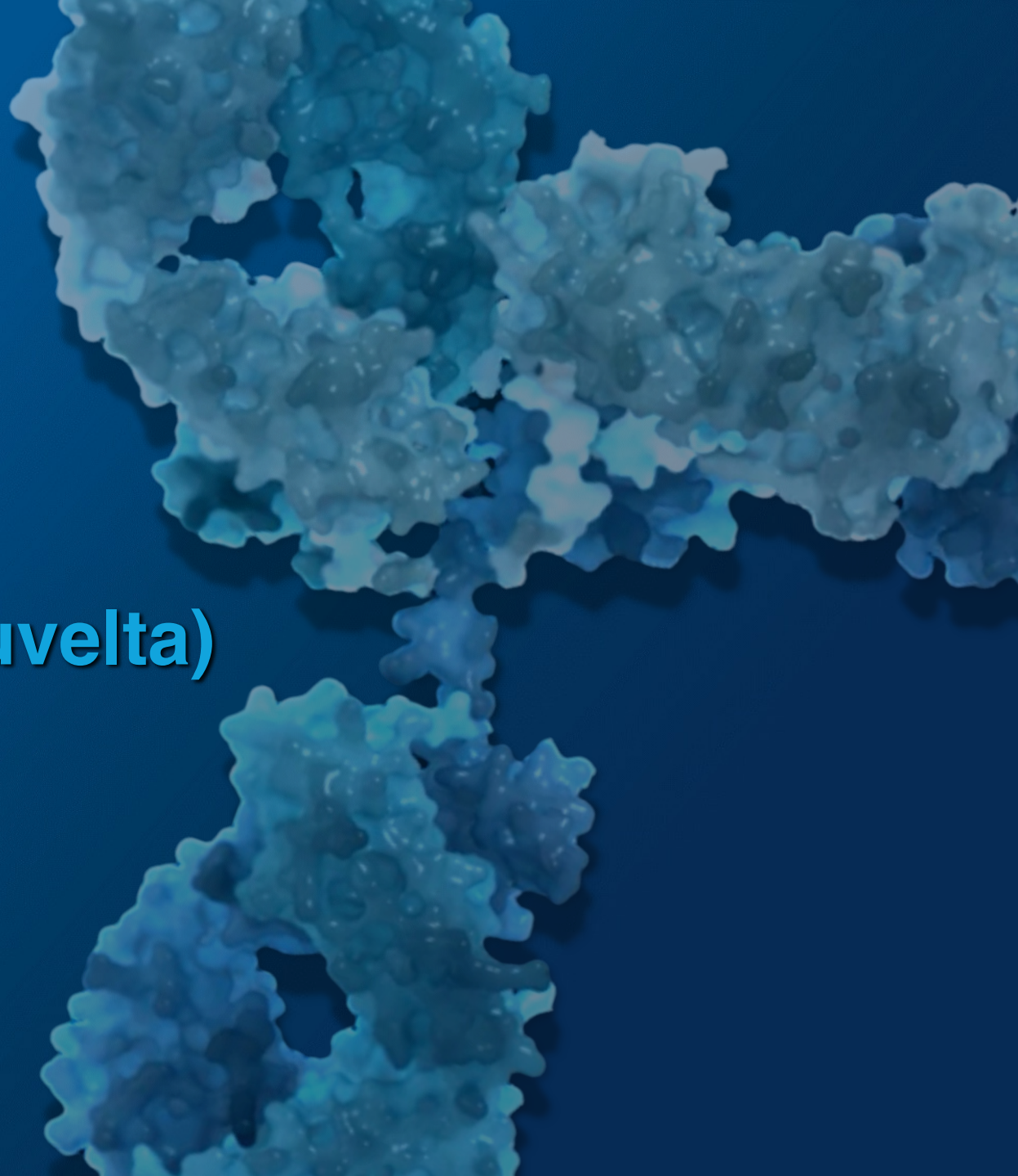
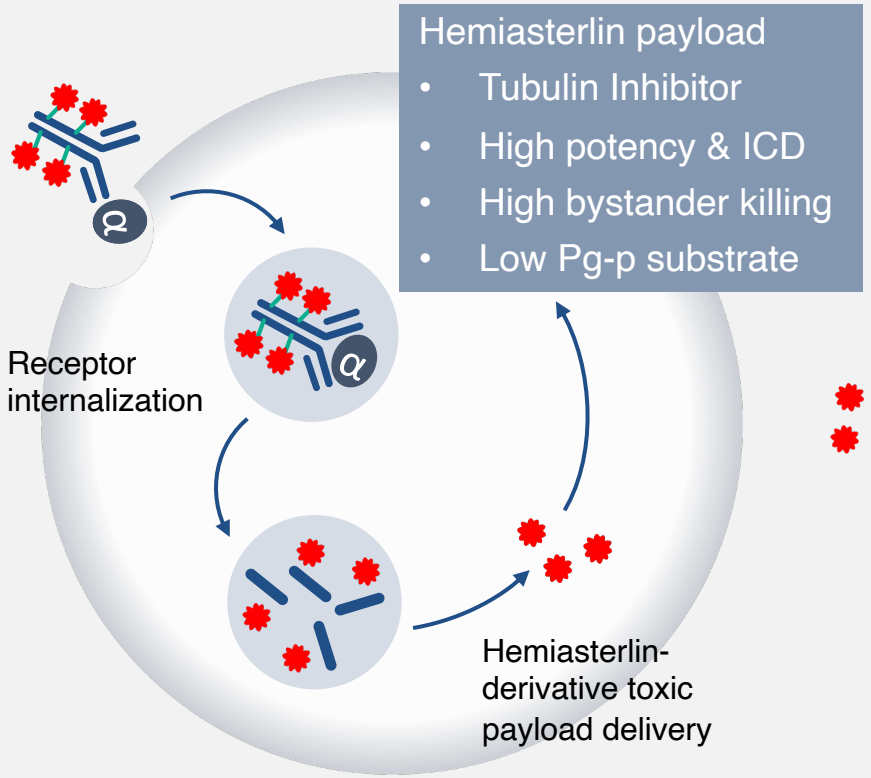
STRO-002
Luveltamab Tazevibulin (Luvelta)



Luvelta: Deliberate Design + Development Enables Pipeline-in-a-Drug Opportunity

Precisely Designed ADC to Expand Patient Access



Potential to Address Multiple FRα Expressing Cancers, Including those with Low Expression Levels

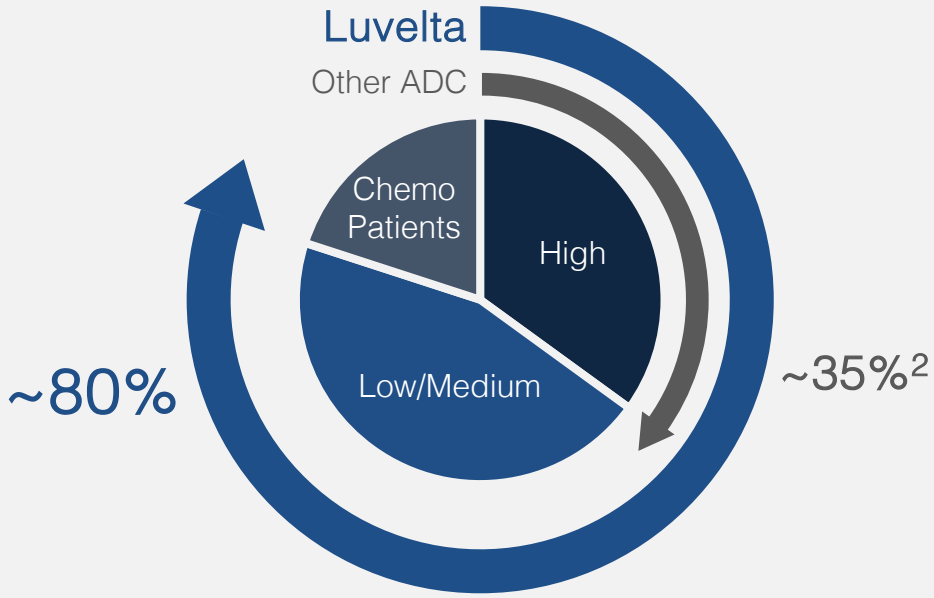
- Promising clinical activity in all indications evaluated, potentially addressing tumors with low-medium FRα expression
- Enrolling REFRαME registrational trial for ovarian cancer; potential to be 1st therapy for low-medium expressing patients
- Complementary registrational trial for pediatric AML
- Multiple follow-on opportunities for clinical development

Source: Modified from Dumontet, C et al., Nat Rev Drug Discov 2023; 22, 641–661.

Significant Opportunities, Initially in Ovarian and Expanding to Additional FRα Expressing Cancers

Luvelta Potentially Doubles the Addressable PROC Patients

Percent of Ovarian Cancer Patients Eligible for Therapy[1]



Estimated Annual Incidence in FRα-Expressing Patient Populations
(U.S., Europe and Japan)

- Ovarian ~69K
- Endometrial ~71K
- NSCLC, Adenocarcinoma ~108K
- Pediatric AML with CBF/GLIS2 AML mutation ~100 per market

PROC: Platinum Resistant Ovarian Cancer
1 – Luvelta eligibility based on TPS level in REFRaME trial; FDA Approved ADC eligibility based on TPS level in Elahere approved label
2 – AbbVie ImmunoGen Acquisition - Slides on the AbbVie IR website, November 30, 2023

FRα expression assumptions for ovarian: ≥25% TPS (80% of pts, internal data); endo: ≥25% TPS (41% of pts[8]); NSCLC: ≥1% TPS (30% of pts, internal data). **Sources**: 1. Sutro internal estimates, data on file. 2. DRG reports. 3. Cancer Statistics in Japan 2023 ganjoho.jp. 4. SEER data and data explorer. 5. American Cancer Society Cancer Facts and Figures, 2023. 6.Deloitte Consulting & IQVIA custom projects for Sutro, 2022. 7. European Cancer Information System (ECIS), accessed Dec 2023. 8. Brown Jones M, et al., Int J Cancer. 2008 Oct 1;123(7):1699-703. 9. Eidenschink Brodersen L, et al. Leukemia. 2016;30(10):2077-2080. 10. Smith, JL et al. Clinical Cancer Research. vol. 26,3 (2020): 726-737.

Opportunity to be First Therapy for Broad PROC Patient Population

Treatment Eligibility is Driven by FRα Biomarker Test

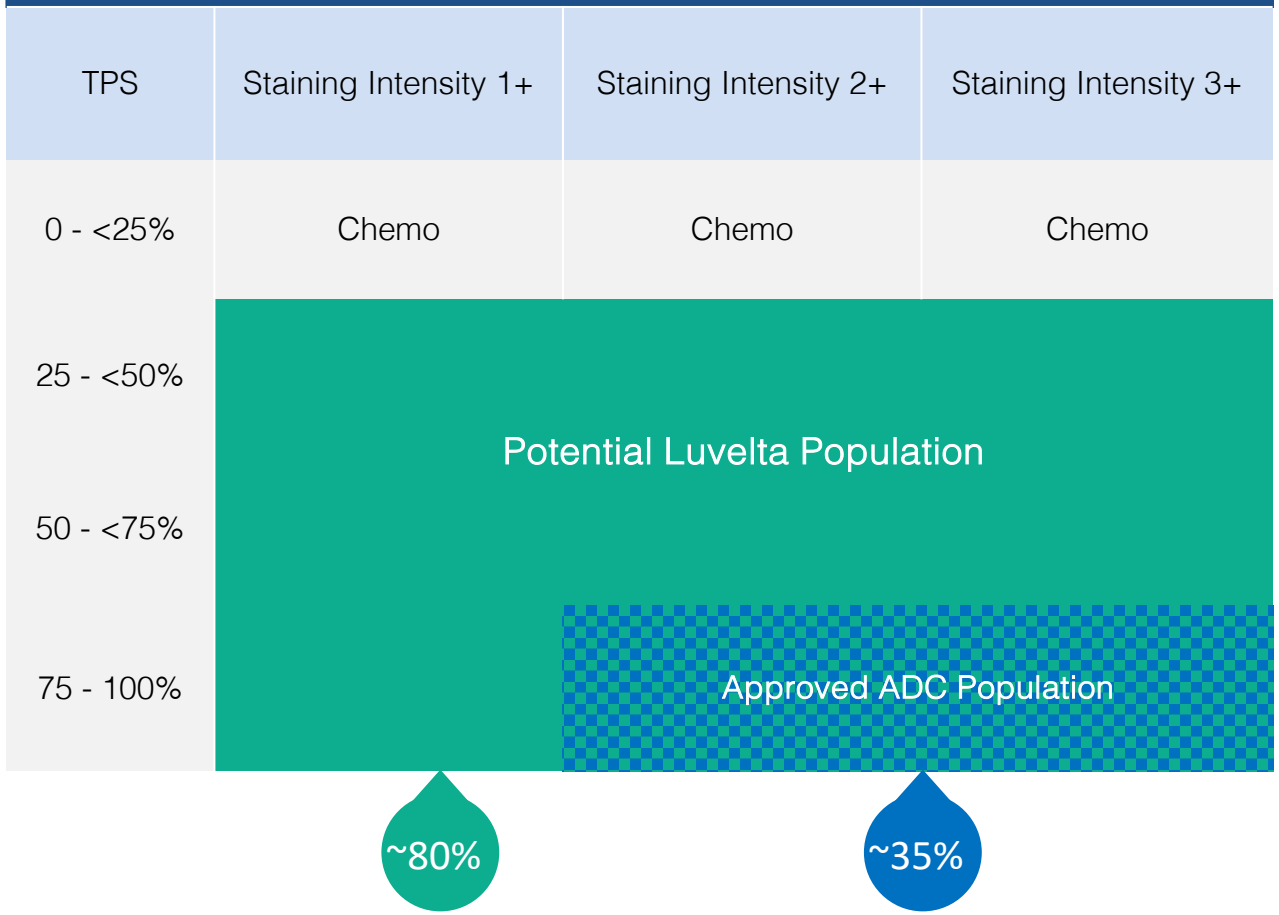
Luvelta has demonstrated clinical activity in PROC patients with **FRα ≥25%**

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

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

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

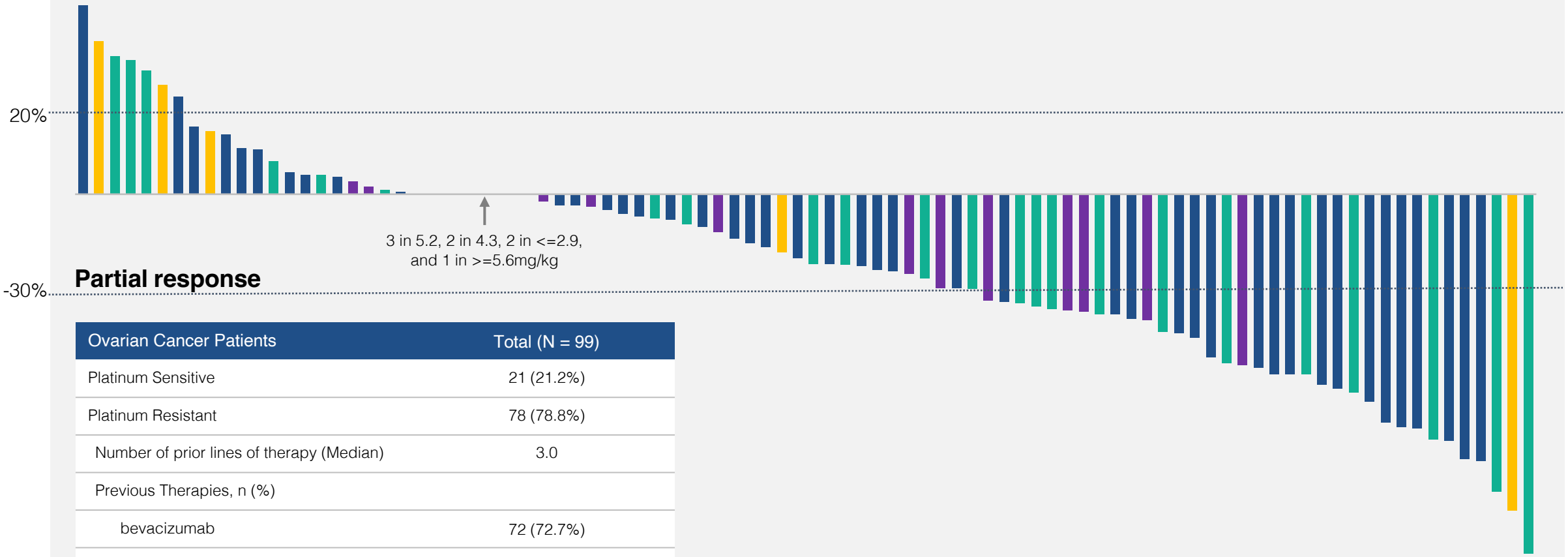
Comparison of Potential Luvelta Population with Approved ADC Population



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 FRα expression in patients with recurrent epithelial ovarian cancer (OC): Update of STRO-002-GM1 phase 1 dose expansion cohort.".

Registrational Strategy Supported by Clinical Data from ~100 Patients

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

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Luvelta Demonstrated Compelling Anti-Tumor Activity and Tolerable Safety Profile

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 FRα ≥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 low-medium expressing patients

Manageable Safety Profile with Low Discontinuation Rates, Consistent Across Indications

Treatment Emergent Adverse Events of Note Were Predictable and Manageable

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 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 (Grade 5 event: Probably, luvelta related)

* Neutropenia included the following preferred terms: neutropenia, febrile neutropenia, and neutrophil count decreased.

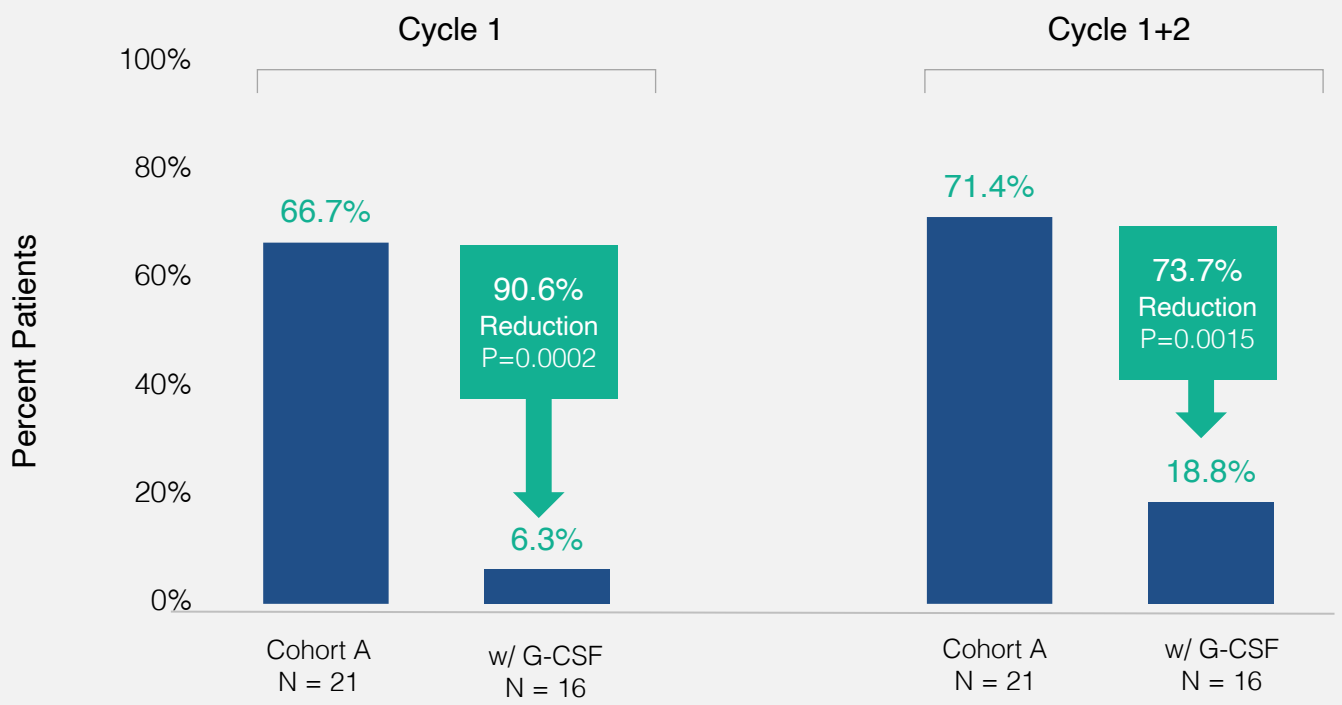
** Neuropathy included the following preferred terms: neuropathy peripheral and peripheral sensory neuropathy.

Data as of Nov 8, 2023

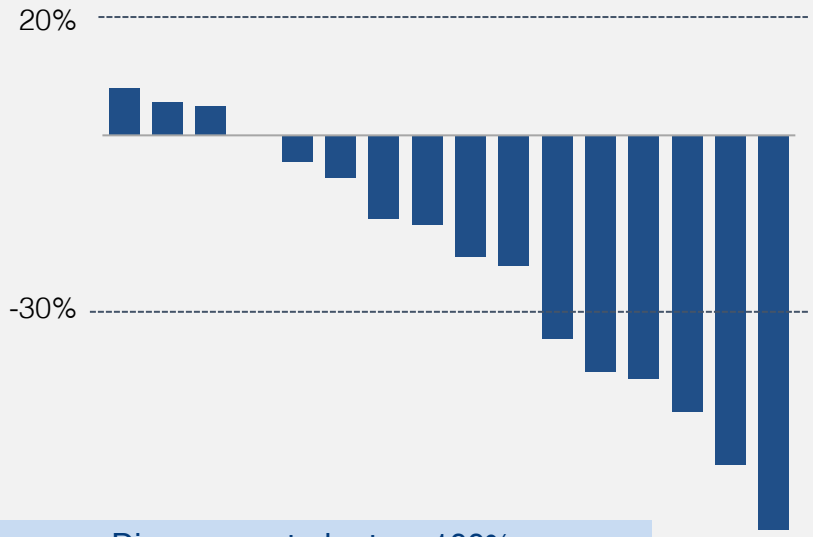
Source: Internal Sutro data on file

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

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



Maximum Reduction in Tumor Target Lesions (N=16)



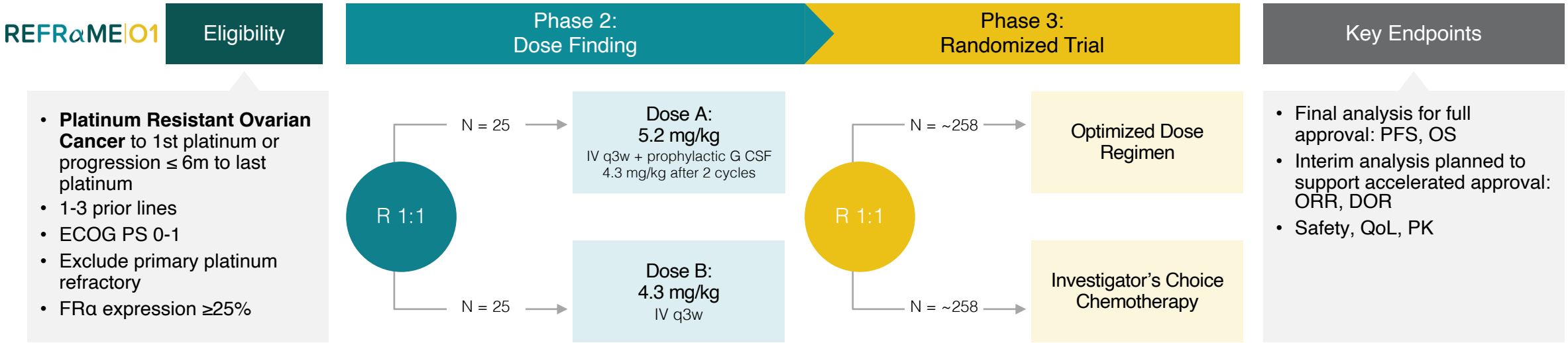
Disease control rate = 100%
(best response)

Preferred Term: G3+ TEAE	Cohort A 5.2 mg/kg (N=21)	Cohort + GCSF 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**:.Internal Sutro data on file.

REFRαME-O1: Registration-directed Study for patients with PROC

- **Part 1** – Fully enrolled (50 patients) in April 2024; patients now in follow up
- **Part 2** – Trial Open and Enrolling patients



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

REFRαME-P1: Addressing Unmet Patient Need + Accelerating PROC

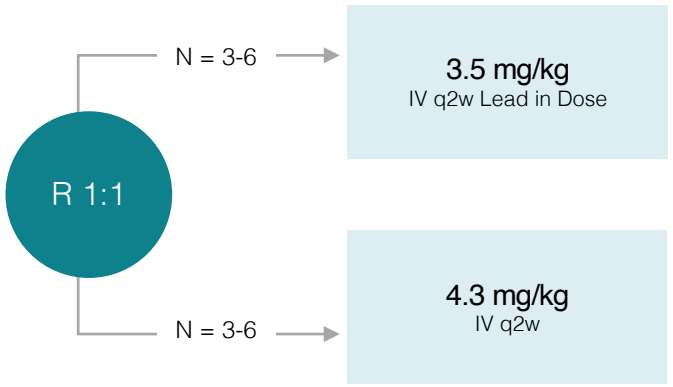
- Pediatric RAM AML – devastating disease impacting infants and toddlers: overall survival of 15-30%
- Regulatory submission requirements in U.S. and Europe may be applicable for PROC submissions
- Potential to receive priority review voucher upon FDA approval and increase commercial readiness for PROC
- May extend luvelta exclusivity
- Additional proof-of-concept for luvelta's ability to address low FRα expressing disease
- Registrational study planned to start 2H 2024

REFRαME|P1

Eligibility

- **Relapsed/Refractory CBFA2T3::GLIS2 AML**
- ≥ 5% Bone Marrow Involvement with Leukemic Blasts

Dose Finding



Dose Expansion

Selected Dose
N = ~18

Key Endpoints

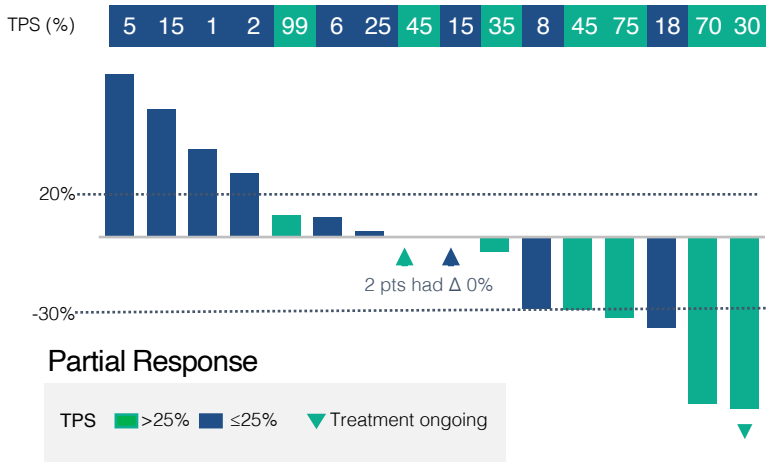
- Complete remission (CR) rate
- Measurable residual disease (MRD)-negative response rate
- Complete remission with partial hematologic recovery (CRh) rate
- EFS, RFS and OS
- Safety, PK

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

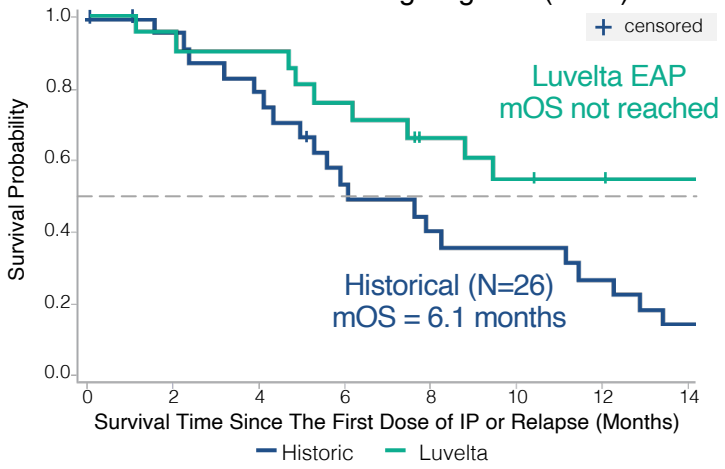
Luvelta Demonstrated Compelling Anti-Tumor Activity and Manageable Safety Profile In Lower and/or Variable FRα Expression Tumors

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

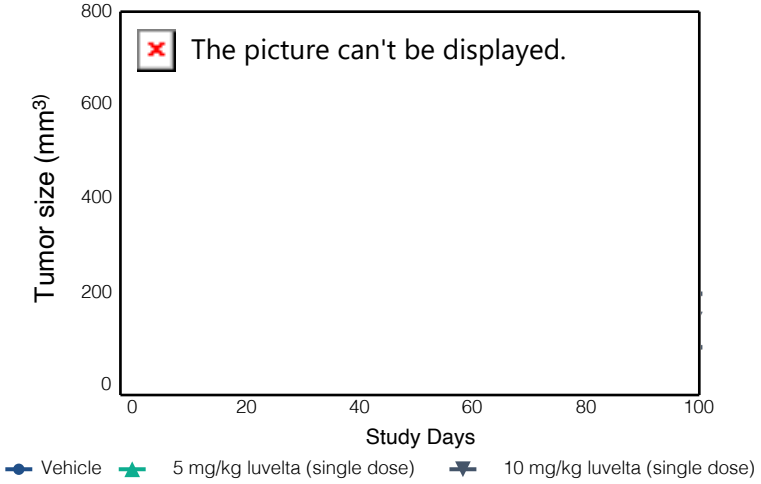
Maximum Reduction in Target Lesions*



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

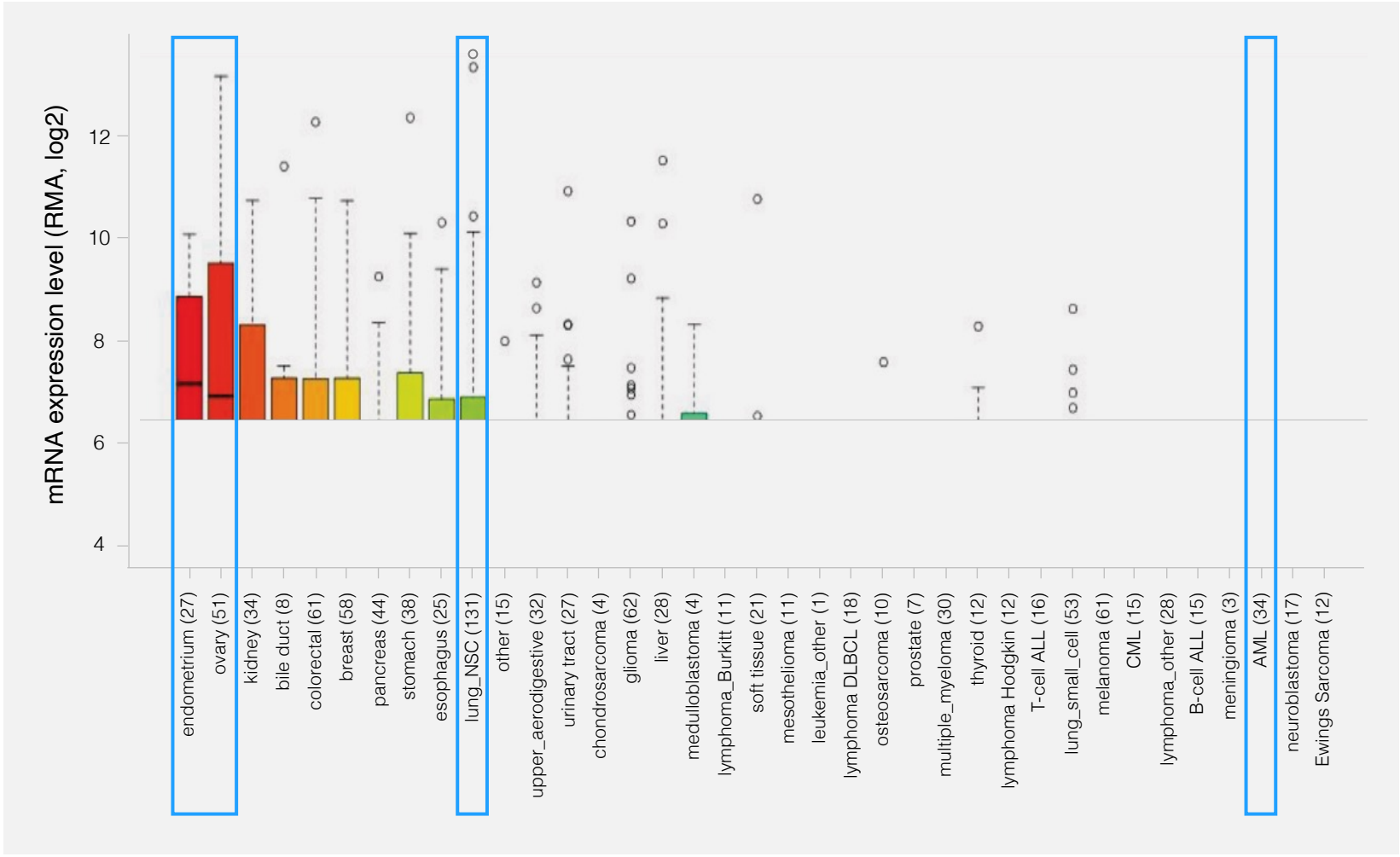


NSCLC PDX model with single dose Luvelta monotherapy



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.

FRα is Broadly Expressed Across Multiple Indications



Key Opportunities for Luvelta

Demonstrated clinical activity across multiple indications

Potential to show activity in tumors with varying levels of FRα expression, covering a broad range of opportunities

Pipeline-in-a-product potential: FRα is expressed in solid and hematological tumors

Source: Cheung et al. "Targeting folate receptor alpha for cancer treatment." Oncotarget. 2016; 7: 52553-52574.

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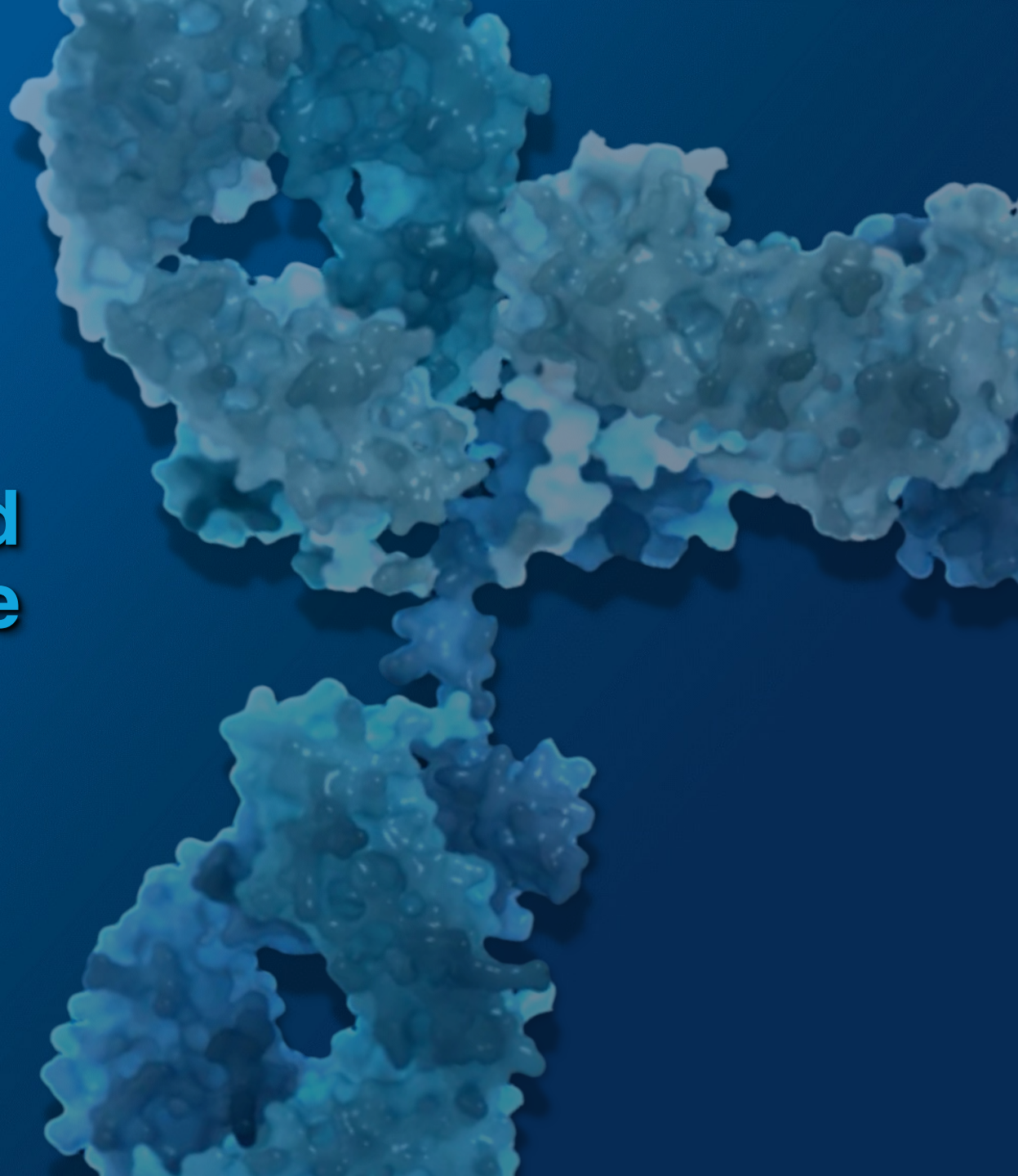
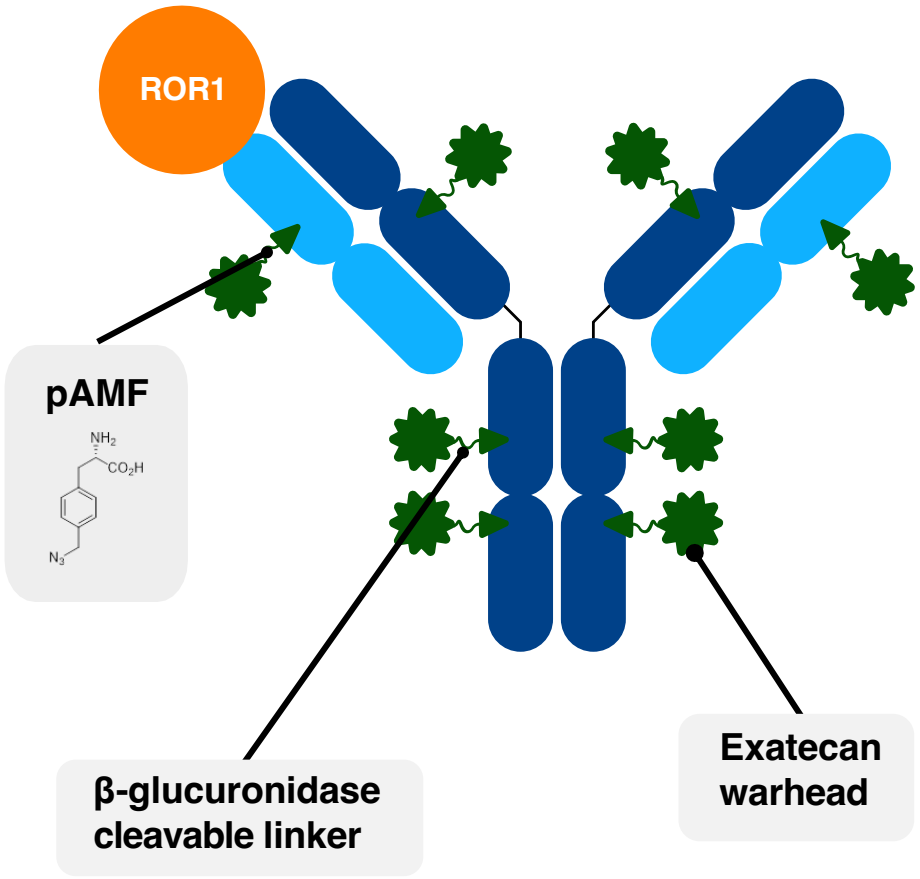
Research Portfolio – Poised to Generate 3 INDs Over the Next 3 Years



Exclusive Global Licensing Agreement with Ipsen for STRO-003 ROR1 Exatecan ADC

Novel, Conjugation Site-Optimized ROR1 ADC



Licensing Agreement Details

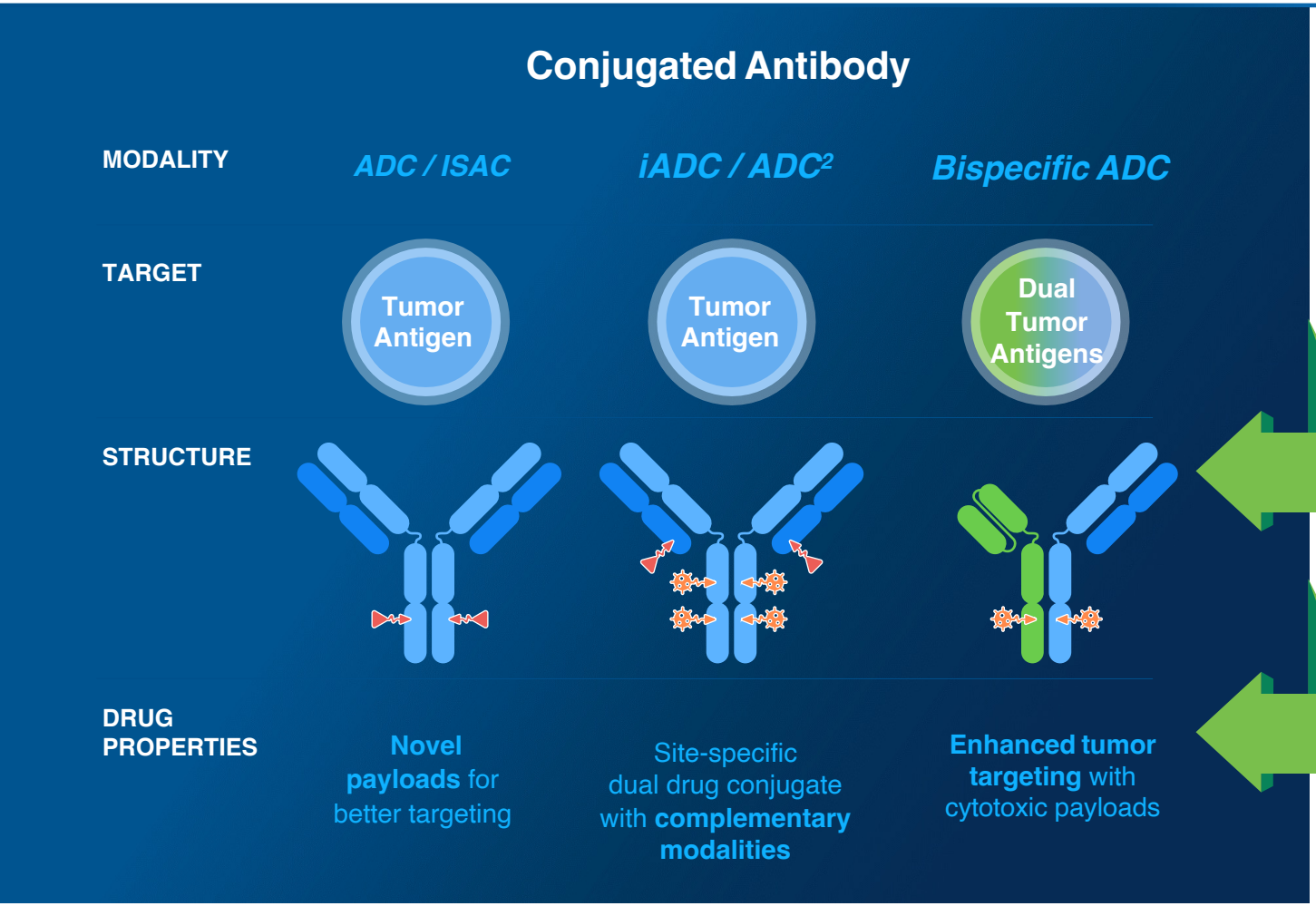
Effective April 2024

- Ipsen secures **exclusive global rights** for development and commercialization of STRO-003
- **~$90M** in potential near-term payments
- Potential for **up to ~$900M** in upfront, equity investments, development, regulatory and commercial milestone payments
- Low double digit to mid-teen digit tiered royalties on global sales, with approval

STRO-003

- Targets ROR1, a clinically validated, highly stable ADC target with a specifically selected exatecan payload and a strongly differentiated profile, achieving a consistent Drug-Antibody Ratio (DAR) of eight
- Has shown robust monotherapy efficacy and potential for a differentiated safety profile in preclinical development in solid tumors and hematological malignancies

Sutro Well-Positioned to Lead Development of Next-Generation ADCs



1. Mono- or Bispecific TAA Targeting

Toolkit of Fit-to-Purpose Linker-Payloads

- DNA targeting / tubulin targeting cytotoxins
- Immune modulators
- Other mechanistically synergistic payloads
- Proprietary cleavable / non-cleavable linkers

2. Single or Dual Conjugations of Different Mechanisms

Our ADC process delivers optimized and consistent candidates, designed to benefit broader patient populations and provide a solution for unwanted ADC class effects

Sutro's Innovative Approach to Future ADC Development

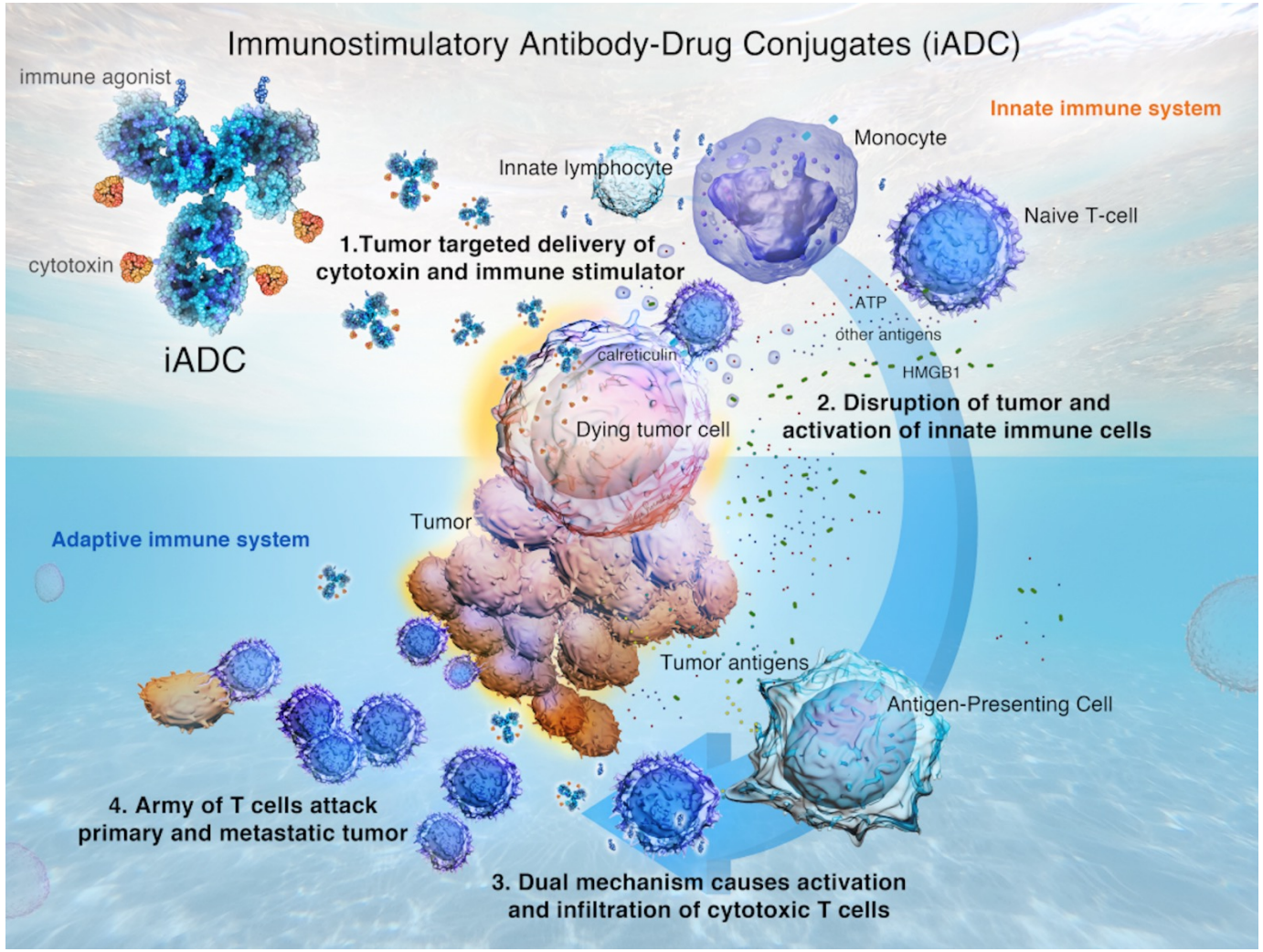
On-target Activity Improve-ments	 ADC Potency	 Immunogenic Cell Death Induction	 Resistance to Top1/Exatecan
Dual Conjugate*	✓	✓	✓
DAR ≥ 8*	✓	✓	✓

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

New Modality for Cold Tumors: Immunostimulatory Antibody Drug Conjugate (iADC)

Strategic iADC Collaboration

- Combining a cytotoxin and immune modulator enabled by **Sutro's dual drug conjugation technology**
- Sutro has **option** to share **costs/profits** for U.S. product development
- Sutro retained option to **develop iADCs outside of/beyond this collaboration** in other targets
- Two collaboration programs have been initiated to date



Express Cell-free Platform - Commercial GMP Scale Enabled in 2024

Approach / Feature	Advantages
Cell-free extract and platform elements **produced separately from proteins**	• Stockpiled cell-free extract used to create a wide variety of proteins • Eliminates cell line development and cell banking for each product
Cell-free production readily scalable from research through commercial	• Predictable and rapid scalability • Fast production minimizes time-in-plant
Non-natural amino acids enable **simple conjugation chemistry**	• High-yield, high-fidelity conversion of mAb to site-specific ADC (or iADC, ADC^2, etc.)
Faster discovery cycle times	• Express, test, assess and characterize many variants during discovery to optimize for the clinic

Results

- Fully folded, active mAbs with optimally located non-natural amino acid sites to enable highly site-specific conjugation and desirable pharmacological profile
- External CDMO network established for our platform technology, Luvelta and the production of future products

Over 3,000 patients have been treated to-date with biologics made using our cell-free technology

Well Capitalized with Strong Business Development Track Record

~$313M (1)

in cash, cash equivalents & marketable securities and Vaxcyte common stock

~$150M

Additional cash received in April 2024 from Ipsen licensing agreement upfront payment & equity purchase, plus gross equity financing proceeds

~0.7M shares of Vaxcyte

(Nasdaq: PCVX) Mar 31, 2024 value included in above $ amount

~$940M (2)

Funding generated from our collaborators

1. Based on cash, cash equivalents and marketable securities and the estimated value of Vaxcyte common stock held by Sutro as of March 31, 2024.
2. Includes payments and equity investments received through April 30, 2024.

Potential for Broad Patients Benefits with Significant Upcoming Milestones

PROGRAM	MODALITY/TARGET	INDICATION	DISCOVERY	PRECLINICAL	PHASE 1/1B	PHASE 2	PHASE 3/ REGISTRATIONAL	WORLDWIDE OR GEOGRAPHIC PARTNER
SUTRO-LED PROGRAMS								
Luveltamab tazevibulin (Luvelta, STRO-002)	FRα Antibody-Drug Conjugate (ADC)	Ovarian Cancer						天士力生物 TASLY BIOPHARMA (Greater China Rights)
		Ovarian Cancer (bevacizumab combo)						
		Endometrial Cancer						
		CBF/GLIS2 Pediatric AML						
		NSCLC						
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
STRO-003	ROR1 ADC	Solid Tumors & Hematological Cancers						IPSEN
Undisclosed Programs	Immunostimulatory ADCs (iADCs)	Cancers						astellas

Experienced Leadership Team

William Newell, JD
Chief Executive Officer and
Member of the Board of Directors

Anne Borgman, MD
Chief Medical Officer

Barbara Leyman, PhD
Chief Business Development Officer

Ed Albini, MBA
Chief Financial Officer

Hans-Peter Gerber, PhD
Chief Scientific Officer

Jane Chung, RPh
President and
Chief Operating Officer

Linda Fitzpatrick
Chief People and
Communications Officer

Venkatesh Srinivasan, PhD
Chief Technical Operations Officer

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