44th Annual J.P. Morgan Healthcare Conference

SUTRO BIOPHARMA

January 2026

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; and our expectations about our cash runway; potential benefits of our 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.

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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.

Delivering the Next-Generation of ADC Therapeutics

Proprietary Platform Creates Best-in-Class ADCs

At the forefront of next-gen ADCs, with improved antibody, linker, and payload for superior safety and efficacy

Single-payload ADCs
for complex targets where competition is limited

Dual-payload ADCs, with partnered and wholly-owned programs, to overcome ADC resistance and delay progression

Three INDs in Three Years

Multiple candidates advancing in parallel for large market opportunities

Well-Capitalized

Runway into at least mid-2027, including certain expected near-term milestone payments

ITGB6 – Integrin-beta 6; IND – Investigational new drug; TF – Tissue factor

Differentiated Pipeline of Single- and Dual-Payload ADCs

SINGLE-PAYLOAD ADCs:

Focused on Complex Targets Expressed Across Many Tumor Types

STRO-004:
TF-Targeting ADC

Best-in-class potential, designed for improved clinical benefit, stability, potency, and tumor selectivity

Mid-2026 ▶ Ph 1 ongoing; initial data expected

Well-tolerated at 50 mg/kg in NHPs

STRO-006:
ITGB6-Targeting ADC

Best-in-class potential, designed for improved clinical benefit, stability, potency, and tumor selectivity

2026 ▶ IND submission expected

Well-tolerated at 25 mg/kg in NHPs

DUAL-PAYLOAD ADCs:

Overcome Resistance and Delay Progression

STRO-227:
PTK7-Targeting dpADC

Supercharged ADCs with best-in-class potential, combining different payloads to achieve improved clinical benefit, tolerability, and duration of response

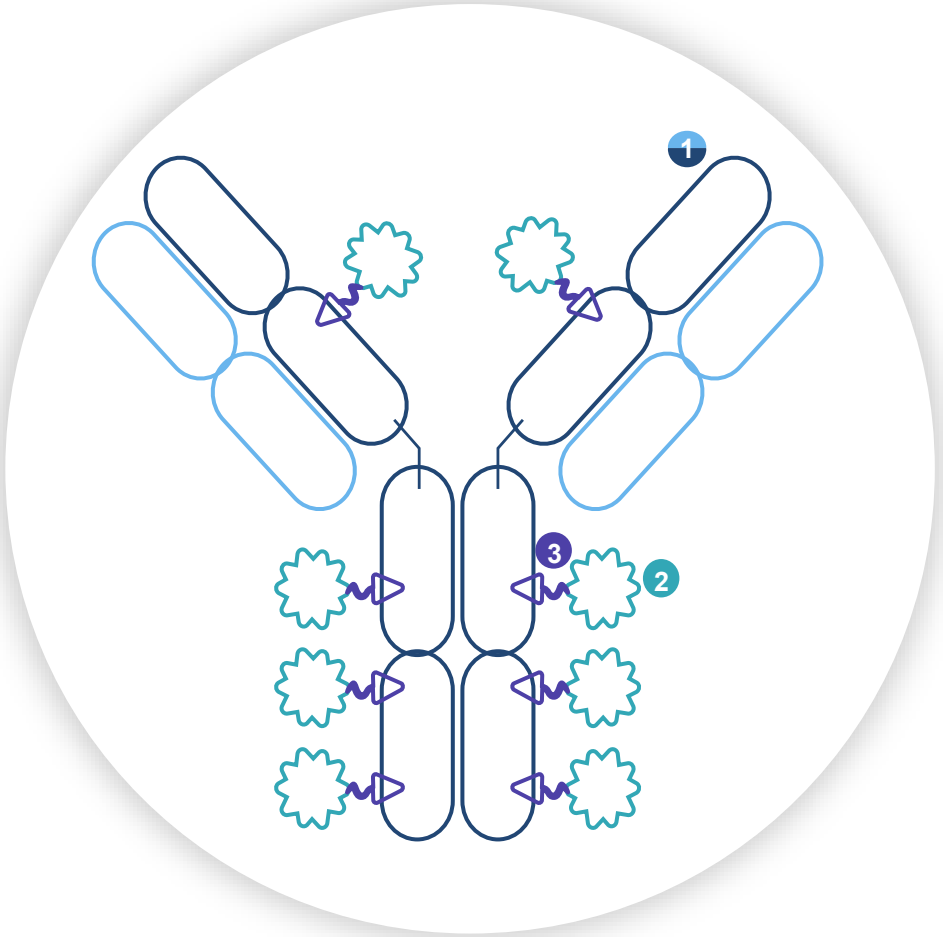
2026 / 2027 ▶ IND submission expected

Well-tolerated at 25 mg/kg in NHPs

dpADC – Dual-payload ADC; NHP – Non-human primate; IND – Investigational new drug; ITGB6 – Integrin-beta 6; PTK7 – Protein Tyrosine Kinase 7; TF – Tissue factor

Sutro's Platform Designed to Optimize Every Component of the ADC

Expanding the therapeutic window to minimize toxicity and maximize efficacy



1 ANTIBODY

- High throughput screening identifies Ab with ideal attributes
- Reduced ILD risk enabled by Fc-silent design

2 PAYLOAD

- High DAR exatecans; stable PK
- Multiple payload combinations with novel modalities

3 LINKER

- Stabilized β-glu linker with non-natural amino acids; optimized linker-payload number and placement
- Tumor-selective cleavage reduces off-target toxicity

OBJECTIVE

Increasing ADC drug exposure leads to greater safety and efficacy

Ab – Antibody; DAR – Drug to antibody ratio; ILD – Interstitial lung disease; PK – Pharmacokinetic

STRO-004

Potential Best-in-Class Exatecan ADC Targeting Tissue Factor

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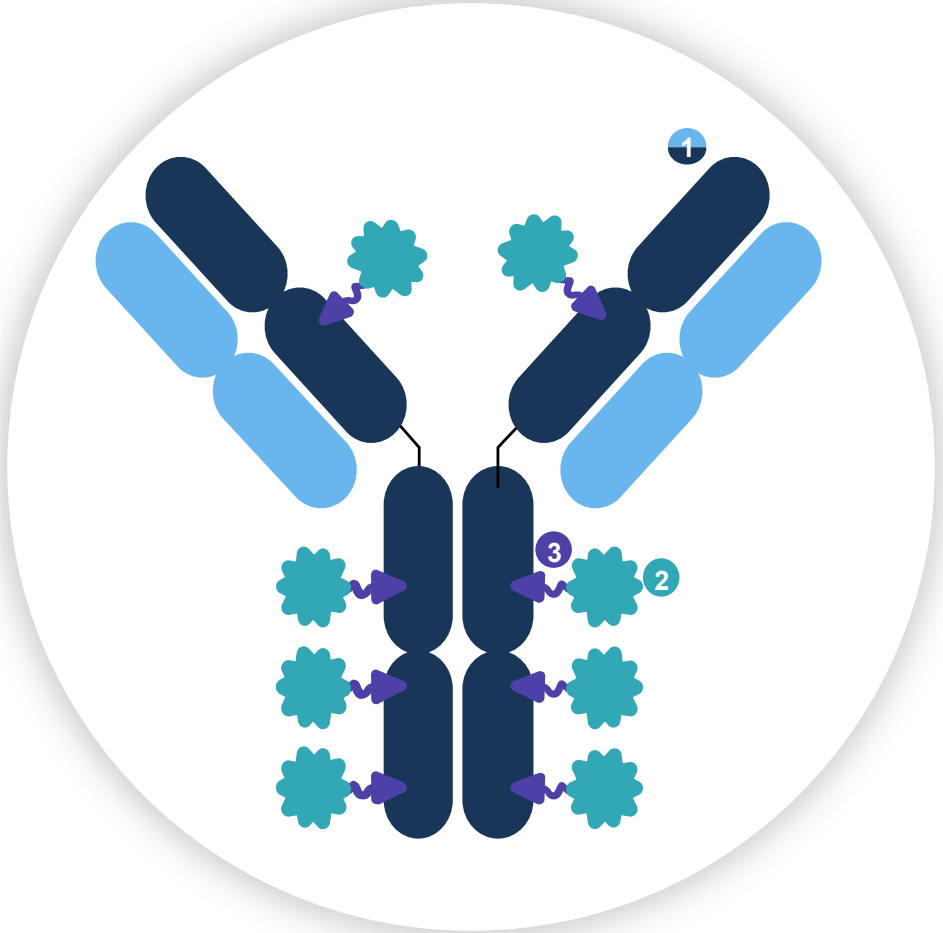
STRO-004: Potent TF-Targeting Exatecan ADC Engineered for Robust Exposure and Efficacy

50x preclinical exposure vs approved TF ADC



1 ANTIBODY

- Tumor targeting, does not interfere with TF biology
- Fc-silent to reduce ILD risk

2 PAYLOAD

- DAR 8; safely boosts potency
- Drives efficacy in low-copy targets

3 LINKER

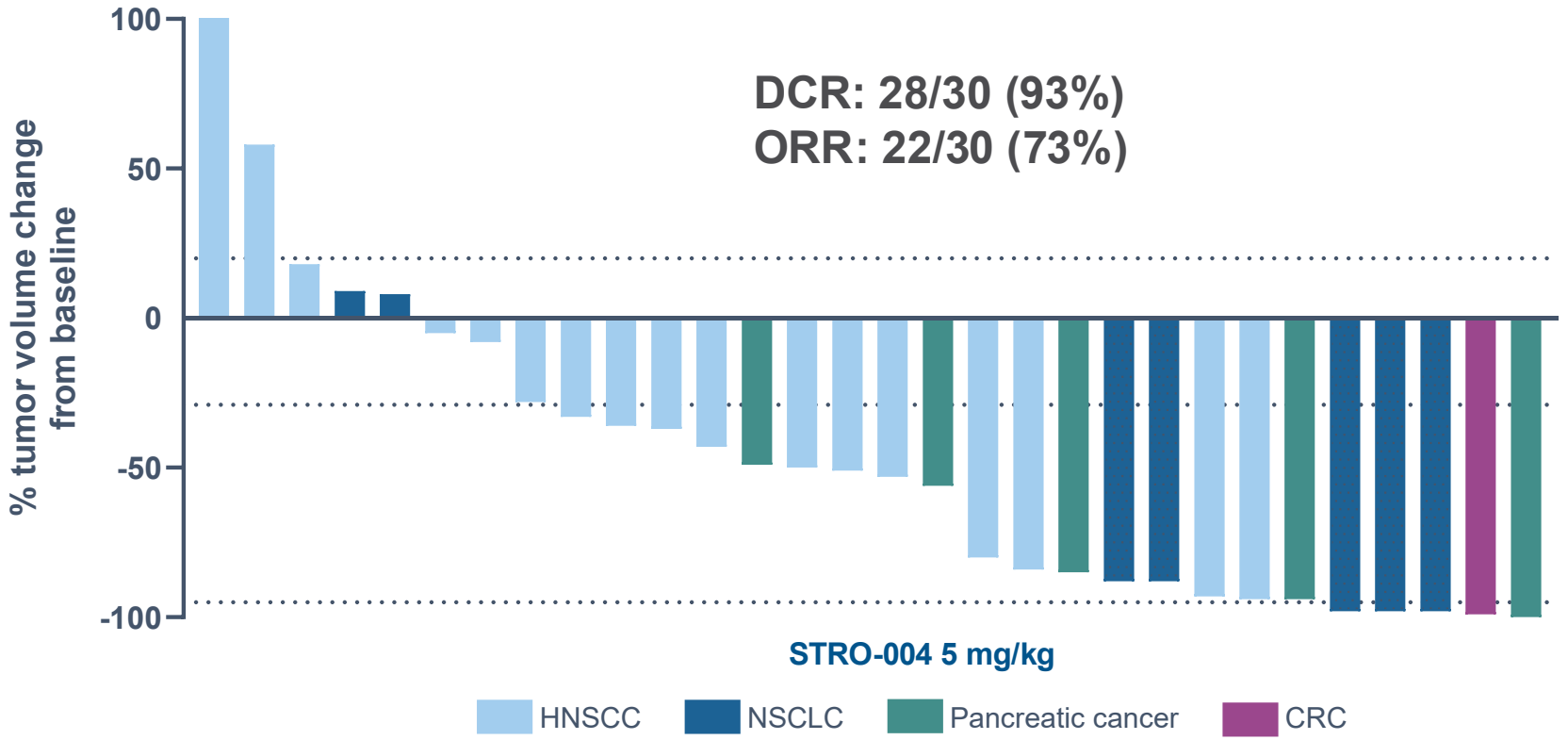
- β-glu linker with site-specific conjugation for stability and tumor-selective cleavage

UPCOMING MILESTONES

Phase 1 trial in a range of solid tumors, with initial data expected mid-2026

DAR – Drug to antibody ratio; ILD – Interstitial lung disease; IND – Investigational new drug; TF – Tissue factor

STRO-004: Promising Anti-Tumor Activity in Multiple TF-Expressing Cancer Models



*Interim Best Overall Response (BOR), model ongoing

	STRO-004			
	ORR	CR	PR	SD
Cancer	N (%)			
HNSCC	17	11 (65)	0	11 (65)	4 (24)
NSCLC	7	5 (71)	3 (43)	2 (29)	2 (29)
PDAC	5	5 (100)	1 (20)	4 (25)	0
CRC	1	1 (100)	1 (100)	0	0

CR – Complete response; CRC – Colorectal cancer; DCR – Disease control rate; HNSCC – Head and neck squamous cell carcinoma; NSCLC – Non-small cell lung cancer; ORR – Overall response rate; PDX – Patient-derived xenograft; PR – Partial response; SD – stable disease; TF – Tissue Factor

Detailed Monotherapy Development Strategy: Phase 1 Trial Ongoing

Initial data expected in mid-2026

Tumor type eligibility
Selected for TF expression:

- NSCLC
- HNSCC
- Colorectal
- PDAC
- Bladder
- Cervical
- Endometrial

- Better for patients
- Early signs of activity
- Relevant to look at safety in potential-forward indications

Dose Escalation
Advanced Solid Tumors with Tissue Factor Expression

- Dose Level 5
- Dose Level 4
- Dose Level 3
- Dose Level 2
- Dose Level 1

HNSTD of 50 mg/kg permits high entry into dose escalation ladder
- Shortens time to observing activity
- Increases probability of wide therapeutic window – facilitates dose optimization

Move Forward with Recommended Dose(s)

- Early detection of activity
- Early characterisation of safety profile
- Early transition to registrational development path

- Recommended Dose 2
- Recommended Dose 1

HNSCC – Head and neck squamous cell carcinoma; HNSTD – Highest non-severely toxic dose; NSCLC – Non-small cell lung cancer; PDAC - Pancreatic ductal adenocarcinoma; TF – Tissue factor

STRO-006

Potential Best-in-Class Exatecan ADC Targeting Integrin-Beta 6

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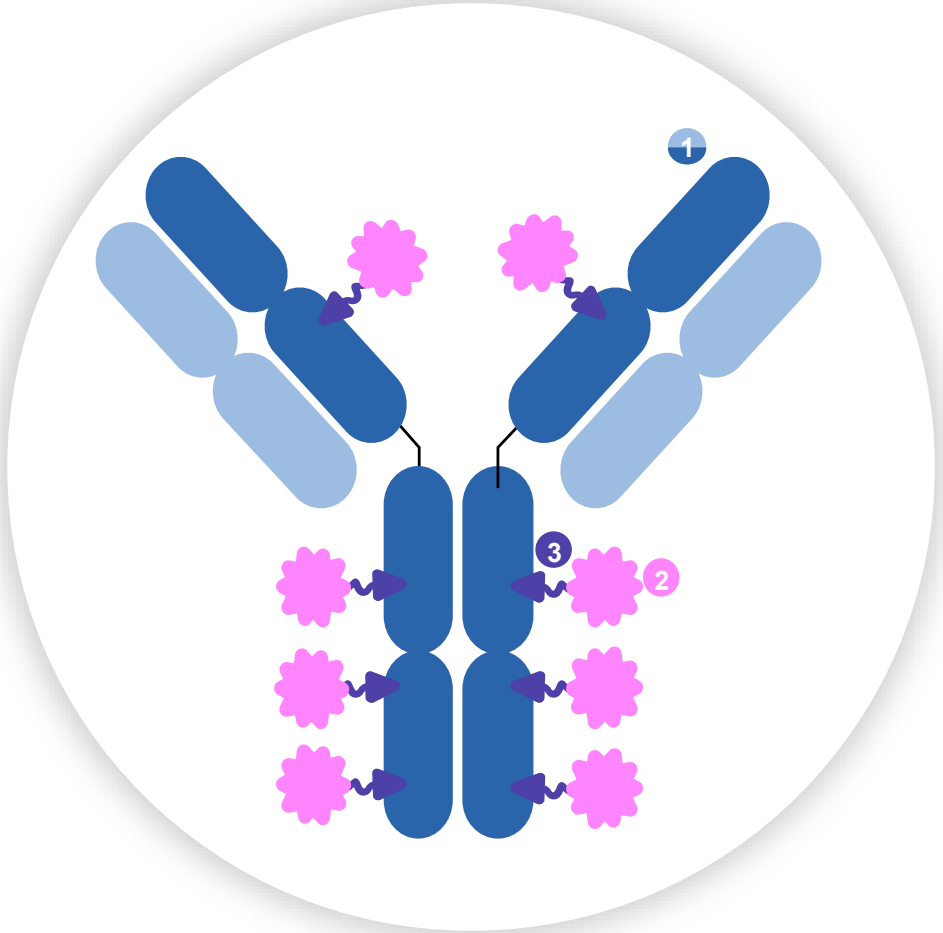
STRO-006: Selective ITGB6-Targeting Exatecan ADC for Leading Tolerability and PK

STRO-006 is designed for superior selectivity, safety and stability



1 ANTIBODY

- High affinity to ITGB6 without effect on TGFβ signaling
- Fc-silent to reduce ILD risk

2 PAYLOAD

- High stable DAR (8)
- Potent anti-tumor activity with bystander effect

3 LINKER

- β-glu linker with robust *in vivo* stability to minimize premature release and enhance PK and tolerability

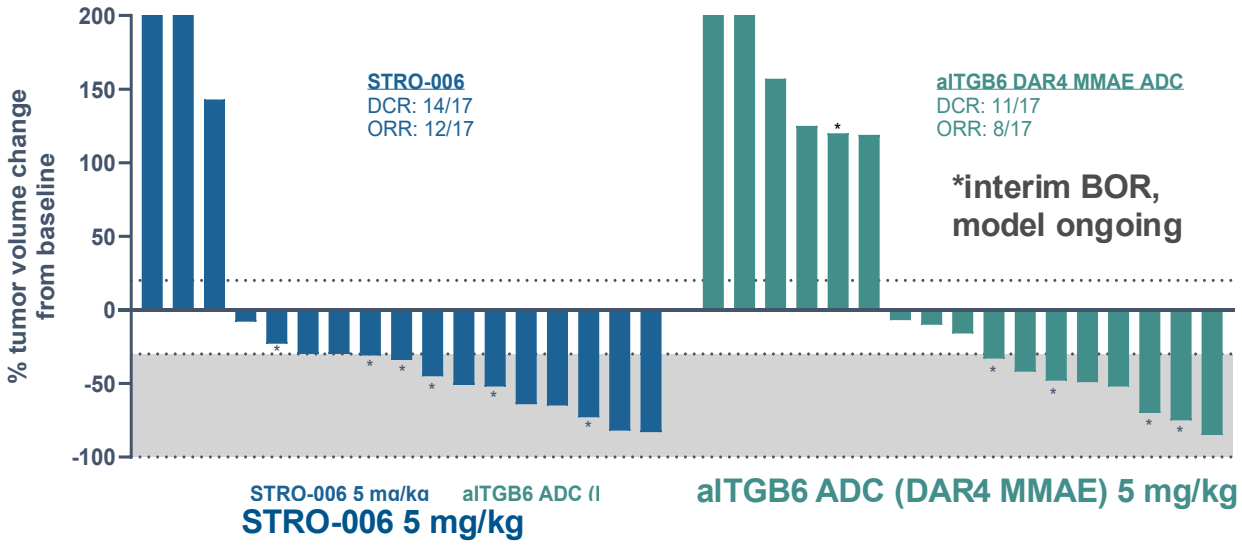
UPCOMING MILESTONES

IND filing planned for 2026

DAR – Drug to antibody ratio; ILD – Interstitial lung disease; IND – Investigational new drug; ITGB6 – Integrin-beta 6; PK – Pharmacokinetic; TGFβ – Transforming growth factor-beta

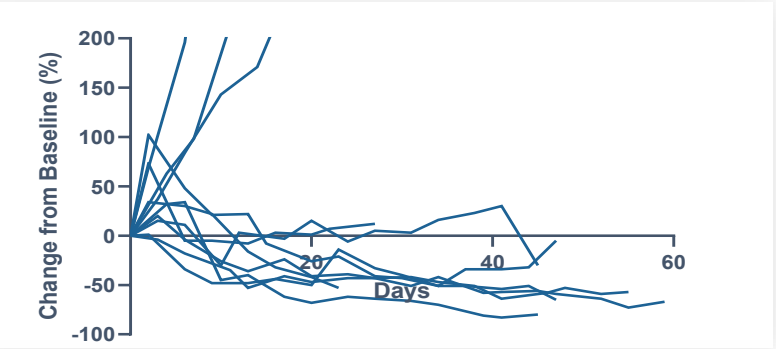
Superior Anti-Tumor Activity and Greater Duration of Response Following a Single Dose of STRO-006 in HNSCC PDX Models

% Best Response PDX Models of HNSCC

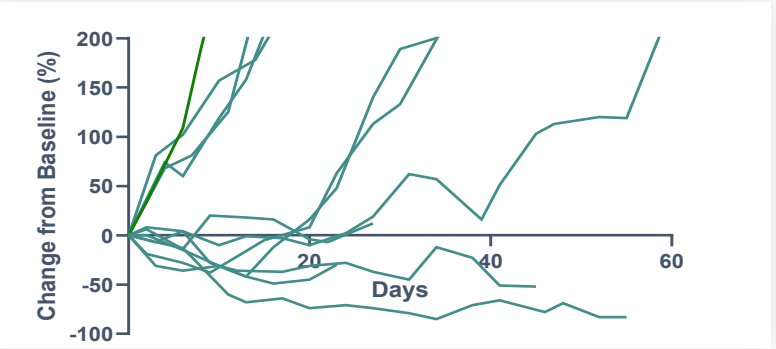


		STRO-006				aITGB6 ADC, DAR4 MMAE			
Cancer	**n**	**ORR**	**CR**	**PR**	**SD**	**ORR**	**CR**	**PR**	**SD**
HNSCC, n (%)	17	**12 (71)**	0	12 (71)	2 (12)	**8 (47)**	0	8 (47)	3 (18)

STRO-006 5 mg/kg



aITGB6 ADC (DAR4. MMAE) 5 mg/kg



Landmark Response

ADC	Response (below baseline) at end of study
STRO-006	7/11 (64%)
aITGB6 DAR4 MMAE	3/11 (27%)

BOR – Best overall response; DAR – Drug to antibody ratio; DCR – Disease control rate; HNSCC – Head and neck squamous cell carcinoma; ITGB6 – Integrin beta 6; ORR – Overall response rate; PDX – Patient-derived xenograft

Delivering Dual-Payloads:

The Next Revolution in ADCs

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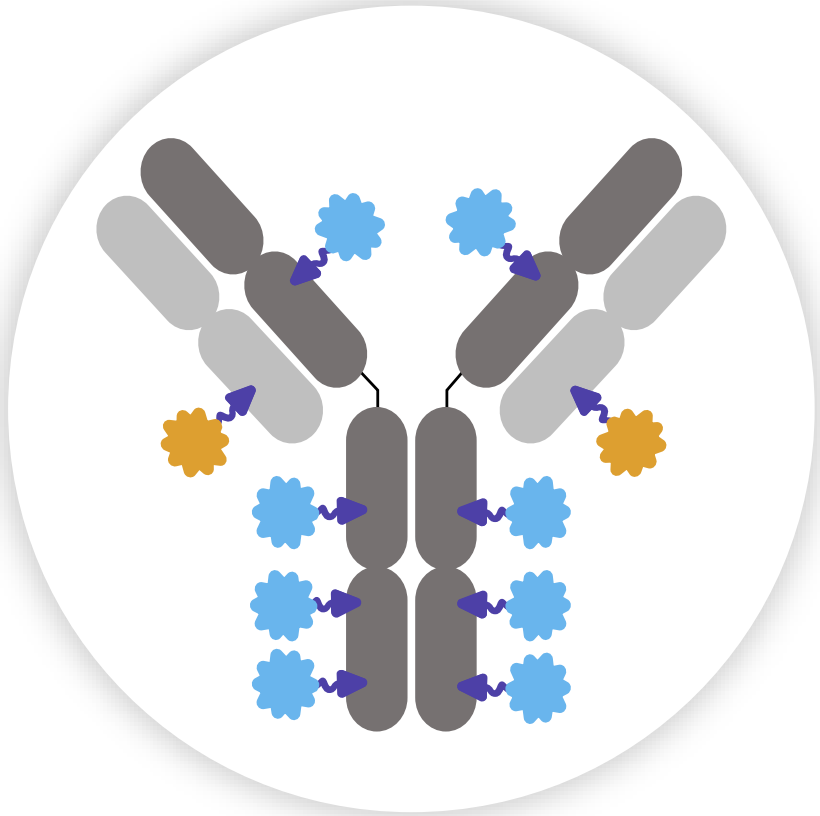
Dual-Payload ADCs:
Targeted Combination Therapy to Improve Outcomes

Combination treatment approaches have been shown to improve outcomes in oncology vs single agent chemotherapy and remain standard of care in many therapeutic areas



Dual-Payload ADCs:
Potential to Become Future Standard of Care

- Overcomes resistance resulting from conventional ADCs
- Reduces toxicity over ADC combination approaches
- Unique benefits from simultaneous delivery of payloads within the tumor cells
- Simplified development path compared to combination treatment regimens
- Unlocks broader market potential across tumor types

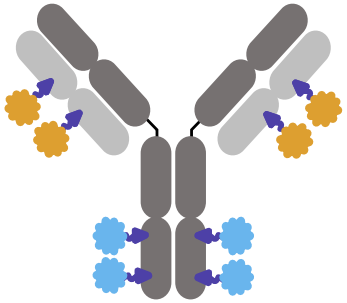
Proprietary Cell-Free Platform Positions Sutro at the Forefront of Dual-Payload Innovation

Multiple Modalities

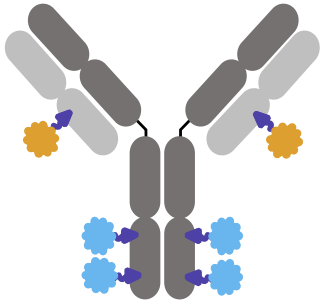
- Topo1 x Tubulin
- Topo1 x DDRi
- Topo1 x IO

Enables novel drug combinations and tuning of ratios with the broadest payload diversity to overcome tumor resistance and improve tolerability

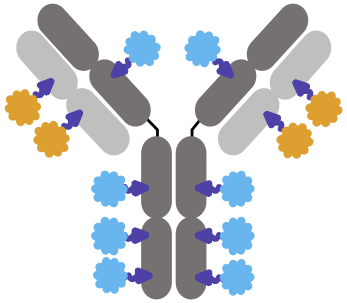
Tailored Ratios



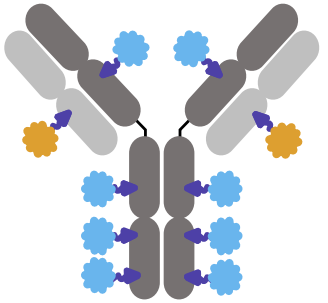
DAR 4+4



DAR 4+2



DAR 8+4



DAR 8+2

Safety

Well-tolerated in non-human primates at 25 mg/kg (2XQ3W) with dual cytotoxin ADC

DAR – Drug to antibody ratio; DDRi – DNA damage response inhibitors; IO – Immuno-oncology

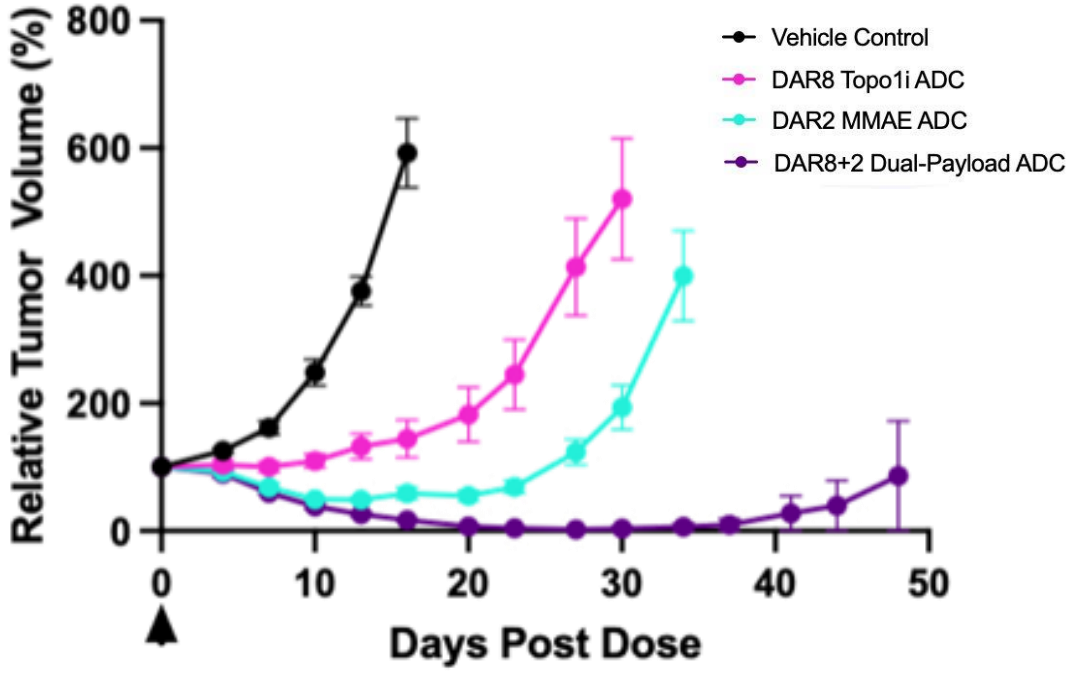
Sutro's First Wholly-Owned Dual-Payload ADC Targeting PTK7

A clinically validated, pan-tumor target enriched on tumor-initiating cells

- Broad expression across high-need indications and associated with poor prognosis
- Anti-tumor clinical activity of an anti-PTK7 ADC has been demonstrated across multiple tumor types
- First-generation anti-PTK7 ADC was constrained by dose-limiting safety, **underscoring need for next-generation ADC with greater specificity and a wider therapeutic index**

UPCOMING MILESTONES
IND filing anticipated in 2026-2027

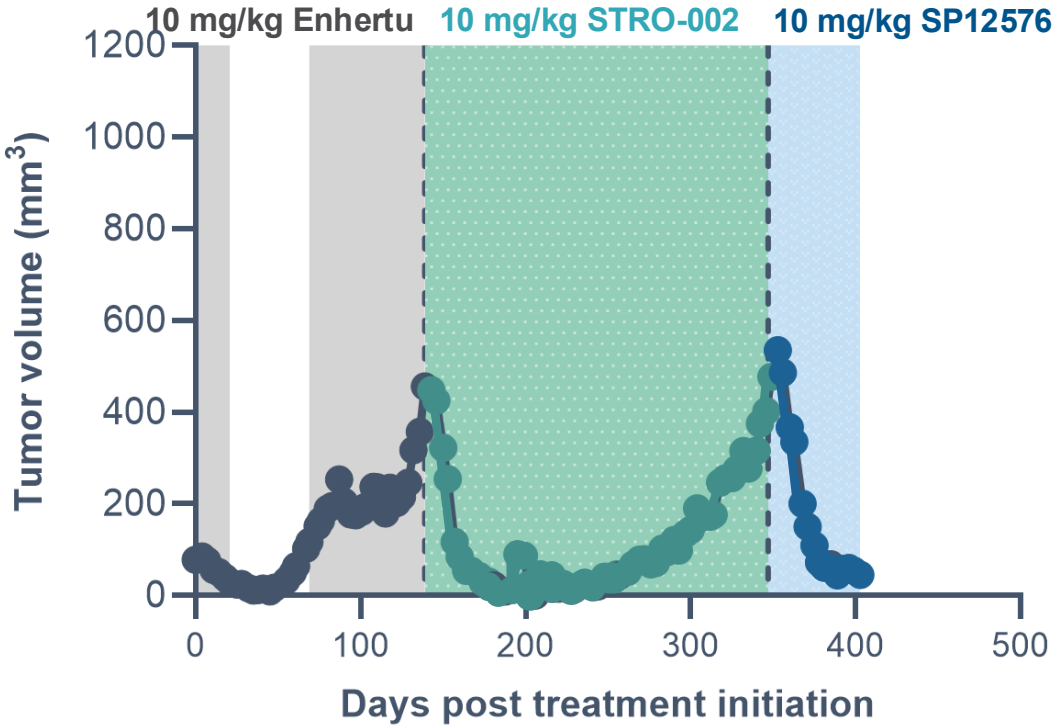
Breast Cancer Xenograft Model



*1: https://pmc.ncbi.nlm.nih.gov/articles/PMC9401513/ 2: *for Ovarian (Pt-resistant)/TNBC/NSCLC 3: The most common, treatment-related adverse events for PF-06647020 administered every 3 weeks were nausea, alopecia, fatigue, headache, neutropenia, and vomiting (45%–25%); 25% of patients had grade ≥ 3 neutropenia. Two patients experienced dose-limiting toxicities (grade 3 headache and fatigue) at the highest every 3 weeks dose evaluated.

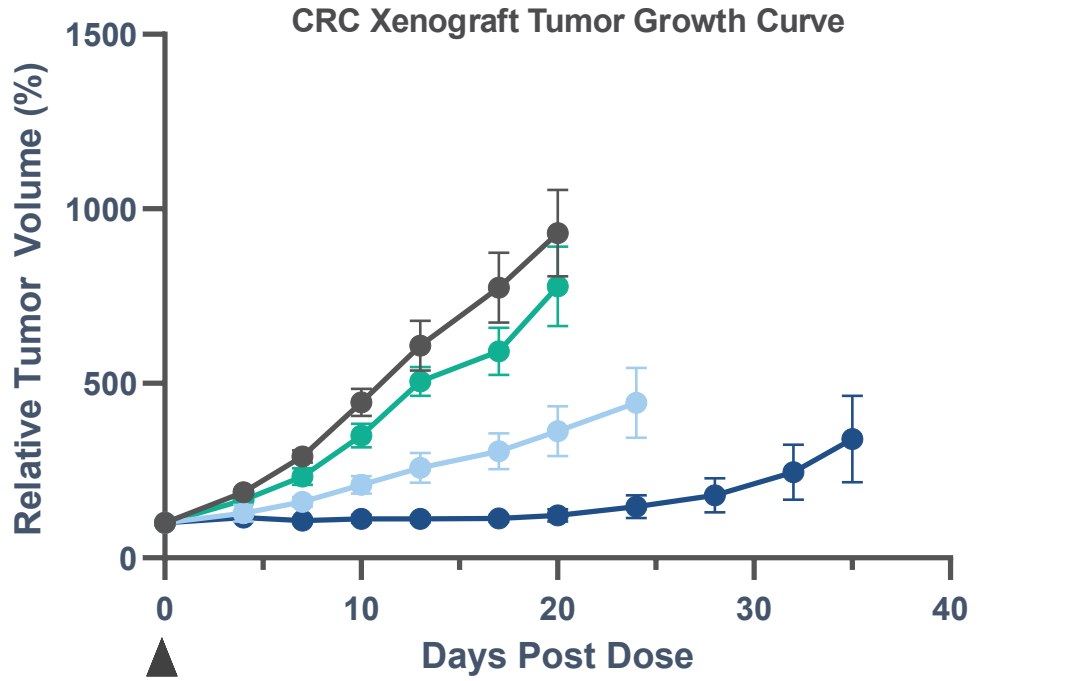
Dual-Payload ADCs Have Overcome Resistance and Driven Tumor Regression in Preclinical Models

Dual-Payload ADC Induces Tumor Regression After Sequential ADC Resistance



Mice with Enhertu-resistant tumors were switched onto STRO-002 treatment and subsequently onto dual-payload ADC after exhibiting STRO-002 resistance

Dual-Payload ADCs Have Improved *In Vivo* Efficacy in an MTI-Resistant CRC Xenograft Model



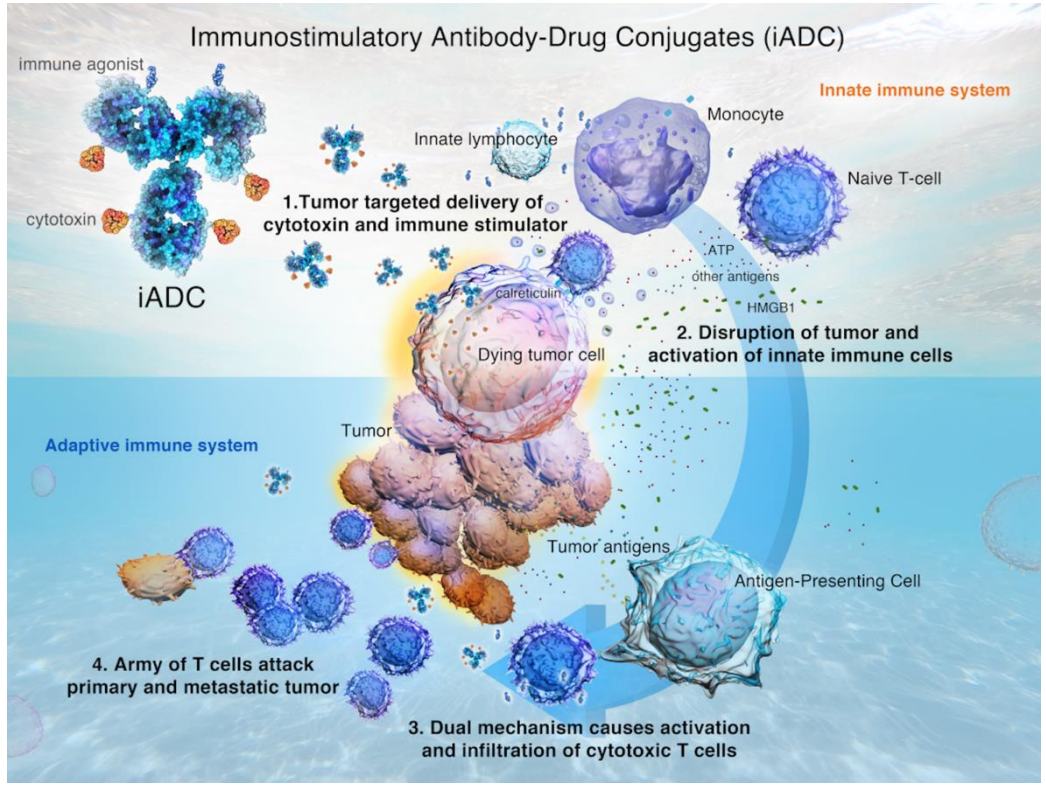
CRC – Colorectal cancer; DAR – Drug to antibody ratio; MMAE – Monomethyl auristatin E; MTI – Microtubule inhibitor

iADC: Dual-Payload ADC Combining Tumor-Targeted Delivery of a Cytotoxin and Immune Stimulator

Strategic partnership with Astellas to deliver new treatment options for cold tumors and patients unresponsive to existing cancer immunotherapies

Combining a cytotoxin and immune modulator gives potential to:

- **Act alone** by stimulating the immune system and priming new populations of immune cells
- **Synergize with other immune therapies** that remove inhibitory signals on the immune system (e.g. checkpoint inhibitors)
- **Address hard-to-treat cancers** by activating a robust anti-tumor immune response



PARTNERSHIP UPDATE

First program expected to enter the clinic in early 2026

iADC – Immunostimulatory ADC; IND – Investigational new drug

Pipeline of Next-Generation Single- and Dual-Payload ADCs

	PROGRAM	MODALITY/TARGET	INDICATION	DISCOVERY	PRECLINICAL	PHASE 1/1B	PHASE 2	PHASE 3/ REGISTRATIONAL	MILESTONES
WHOLLY-OWNED PROGRAMS	**STRO-004**	Tissue Factor ADC	Solid Tumors						Initial Phase 1 data expected mid-2026
	STRO-006	Integrin αvβ6	Solid Tumors						IND submission expected 2026
	STRO-227	PTK7 Dual-Payload ADC	Solid Tumors						IND submission expected 2026-2027
	STRO-00Y	Dual-Payload ADC	Solid Tumors						
PARTNERED PROGRAMS	**VAX-24** VAXCYTE	24-Valent Conjugate Vaccine	Invasive Pneumococcal Disease						
	VAX-31 VAXCYTE	31-Valent Conjugate Vaccine	Invasive Pneumococcal Disease						
	Undisclosed Programs Astellas	Immunostimulatory ADCs (iADCs)	Cancers						1st program expected to enter clinic in early 2026