
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): January 9, 2023

SUTRO BIOPHARMA, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of Incorporation)

001-38662
(Commission
File Number)

47-0926186
(IRS Employer
Identification No.)

111 Oyster Point Blvd.
South San Francisco, California, 94080
(Address of principal executive offices) (Zip Code)

(650) 881-6500
(Registrant's telephone number, including area code)

Not Applicable
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- ☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- ☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- ☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- ☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, \$0.001 par value	STRO	The Nasdaq Global Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 7.01 Regulation FD Disclosure.

On January 12, 2023, Sutro Biopharma, Inc. (the “*Company*”) will present an updated corporate presentation at the 41st Annual J.P. Morgan Healthcare Conference. A copy of the corporate presentation is attached as Exhibit 99.1 to this Current Report on Form 8-K. The corporate presentation will also be available on the Company’s website in the Investors section at <https://www.sutro.bio/corporate-presentation/>.

The information furnished with this report, including Exhibit 99.1, shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (“*Exchange Act*”), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference into any other filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such a filing.

Item 8.01 Other Events.

On January 9, 2023, the Company issued a press release providing an update of its Phase 1 dose expansion study of its STRO-002 (Luvelta) product candidate as well as plans for a registrational path forward. The Company also hosted a live webcast discussion regarding STRO-002 (Luvelta).

A copy of the press release and clinical data presentation presented during the webcast are attached as Exhibits 99.2 and 99.3, respectively, to this Current Report on Form 8-K.

This current report contains forward-looking statements within the meaning of the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995, including, but not limited to, anticipated preclinical and clinical development activities, timing of announcements of clinical results, trial initiation and regulatory filings, potential benefits of STRO-002 (Luvelta) and the Company’s other product candidates and platform, potential future milestone and royalty payments, and potential market opportunities for STRO-002 (Luvelta) and the Company’s other product candidates. All statements other than statements of historical fact are statements that could be deemed forward-looking statements. Although the Company believes that the expectations reflected in such forward-looking statements are reasonable, the Company cannot guarantee future events, results, actions, levels of activity, performance or achievements, and the timing and results of biotechnology development and potential regulatory approval is inherently uncertain. Forward-looking statements are subject to risks and uncertainties that may cause the Company’s actual activities or results to differ significantly from those expressed in any forward-looking statement, including risks and uncertainties related to the Company’s ability to advance its product candidates, the receipt and timing of potential regulatory designations, approvals and commercialization of product candidates and the Company’s ability to successfully leverage Fast Track designation, the market size for the Company’s product candidates to be smaller than anticipated, the impact of the COVID-19 pandemic on the Company’s business, clinical trial sites, supply chain and manufacturing facilities, the Company’s ability to maintain and recognize the benefits of certain designations received by product candidates, the timing and results of preclinical and clinical trials, the Company’s ability to fund development activities and achieve development goals, the Company’s ability to protect intellectual property, the value of the Company’s holdings of Vaxcyte common stock, and the Company’s commercial collaborations with third parties and other risks and uncertainties described under the heading “Risk Factors” in documents the Company files from time to time with the Securities and Exchange Commission. The Company undertakes no obligation to publicly update any forward-looking statement, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
99.1	Corporate Presentation
99.2	Press release by Sutro Biopharma, Inc.
99.3	Clinical Data Presentation
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Sutro Biopharma, Inc.

Date: January 9, 2023

By:

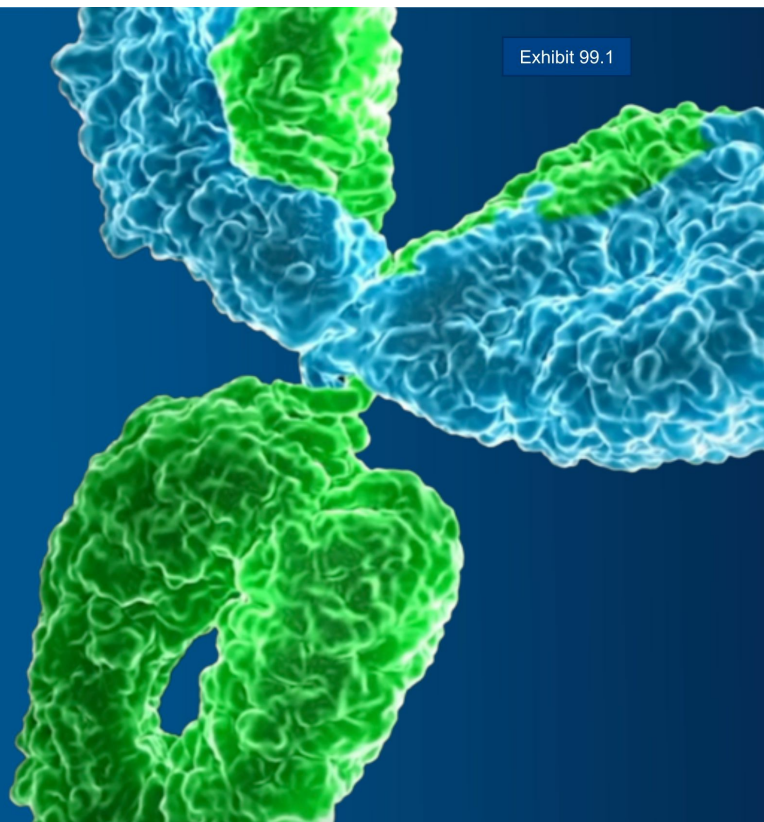
/s/ Edward Albini
Edward Albini
Chief Financial Officer

Company Overview

January 9, 2023

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, 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 therapeutic benefits and economic value of our product candidates, potential growth opportunities, financing plans, potential future milestone and royalty payments, competitive position, industry environment and potential market opportunities for the Company’s 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, timing and results of preclinical and clinical trials, and the expected impact of the COVID-19 pandemic on our operations. 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.

Six Product Candidates in Clinical Development are Enabled by Sutro's Platform

Unique engineering prowess in the field of precisely conjugated biologics, including next-gen ADCs

Modality	Program	Target(s)	Indication	Discovery	Preclinical	Phase 1/1b	Phase 2/3	Partner
Antibody-Drug Conjugate (ADC)	Luvelta (STRO-002)	FolRα	Ovarian Cancer	Fast Track Designation				 天士力生物 TASUIT BIOPHARMA (Greater China)
			Ovarian Cancer (bevacizumab combo)					
			Endometrial Cancer					
			NSCLC/Non-Gyn Cancers					
	STRO-001	CD74	Lymphoma					 TICNOVA Pharma 医药集团 (Greater China)
			Multiple Myeloma	Orphan Drug Designation				
	CC-99712	BCMA	Multiple Myeloma	Orphan Drug Designation				 Bristol Myers Squibb*
			Multiple Myeloma (GSI combo)					
Other Early-Stage ADCs	STRO-003	ROR1	Cancer					
	Other Early-Stage ADCs	Tissue Factor	Cancer					
Bispecific ADC	M1231	MUC1-EGFR	NSCLC & Esophageal Cancer					 EMD SERONO ⁽¹⁾
Immunostimulatory ADC (iADC)	Undisclosed	3 Undisclosed Targets	Cancer					 astellas
Cytokine	MK-1484	IL-2	Advanced or Metastatic Solid Tumors					 MERCK
Vaccine	VAX-24	24-Valent Conjugate Vaccine	Invasive Pneumococcal Disease					 VAXCYTE pfs inc.

1. EMD Serono is the biopharmaceutical business of Merck KGaA, Darmstadt Germany in the U.S.

Achievements and Milestones

Clinical data readouts and partnerships provide multiple anticipated 2023 value drivers for Sutro

Luvelta (STRO-002, FolR α ADC)

- ☒ Data on Phase 1 dose-expansion and regulatory path forward for the development of luvelta
- ☐ Initiate registration-directed Phase 2/3 trial, REFRA α ME, in platinum-resistant ovarian cancer (2Q 2023)
- ☐ Provide regulatory update and clinical development plan for infants and children with relapsed/refractory CBF/GLIS2 acute myeloid leukemia (1Q 2023)
- ☐ Data on Phase 1 endometrial cancer cohort (2H 2023)
- ☐ Data on Phase 1 bevacizumab combination trial for advanced ovarian cancer (2H 2023)
- ☐ Submit IND for non-small cell lung cancer (2023)
- ☐ Initiation by Tasly of clinical development of luvelta in ovarian cancer in Greater China (2023)

STRO-001, CD74 ADC

- ☐ Initiation by BioNova of clinical development of STRO-001 in B-cell NHL in Greater China (2023)

STRO-003, ROR1 ADC and Emerging Portfolio

- ☐ IND enabling studies completed for STRO-003 (1Q 2024)
- ☐ Advance 4th proprietary preclinical program towards IND (2023)

Collaborations: Research & Manufacturing Revenue

- ☒ Vaxcyte: Manufacturing agreement for the rights and development of cell-free extract
- ☐ Astellas: Advance preclinical research collaboration on immunostimulatory ADCs
- ☐ BMS, Merck & EMD Serono: Manufacturing support and materials for clinical supply

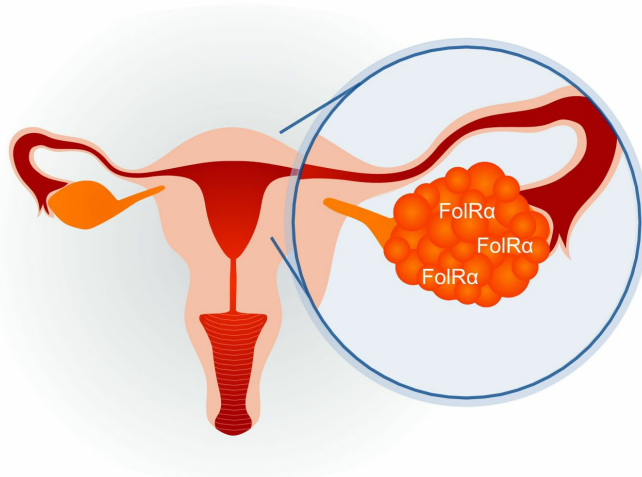
Luveltamab Tazevibulin (Luvelta, STRO-002)

SUTRO
BIOPHARMA

Advanced Ovarian Cancer Has a High Unmet Medical Need

Due to advanced stage of disease at diagnosis and limited progress of available treatments

- Ovarian cancer is the most common cause of death from gynecological cancers
 - Accounts for **2.1%** of all estimated cancer deaths^(1,2)
 - Almost half of affected women live less than **five years** following diagnosis^{1,2}
- In 2022, an estimated **19,880** new ovarian cancer cases were diagnosed in the United States^(1,2)
 - Total estimated death from this disease was 12,810
- Folate receptor alpha, or **FolRa** is highly expressed in ovarian cancer
 - Associated with disease burden and treatment outcomes^(3,4)



FolRa, folate receptor alpha.

1. Cancer facts and figures 2022. <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2022/2022-cancer-facts-and-figures.pdf>. Accessed December 14, 2022.

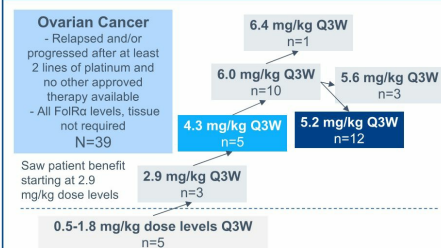
2. 2022 Estimates. American Cancer Society. [https://cancerstatisticscenter.cancer.org/?_ga=2.9856755.798860474.1671221534-46877757.1671052212#/#/](https://cancerstatisticscenter.cancer.org/?_ga=2.9856755.798860474.1671221534-46877757.1671052212#/). Accessed December 16, 2022.

3. Birrer MJ, et al. *Oncologist*. 2019;24:425–429. 3. <https://www.nature.com/articles/s41416-022-02031-x>

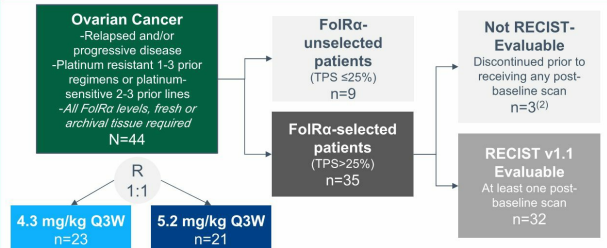
Two-Part Phase 1 Study for Patients with Advanced Ovarian Cancer⁽¹⁾

Explored dosing regimen and biomarker levels for which luvelta is optimal

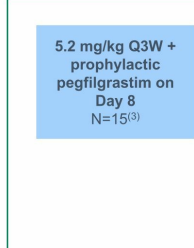
Part 1: Dose-escalation cohort



Part 2: Dose-expansion cohort – Cohort A



Part 2: Cohort C



Patient Baseline Demographics – Part 2: Dose-Expansion – Cohort A	All Patients Enrolled (N=44)			FolRα-Selected Patients (N=35)			Cohort C
	4.3 mg/kg n=23	5.2 mg/kg n=21	Total N=44	4.3 mg/kg n=19	5.2 mg/kg n=16	Total N=35	Total N=10 ⁽³⁾
Median age (range), years	63 (39–91)	56 (40–72)	60 (39–91)	63 (39–91)	55.5 (45–72)	60 (39–91)	67 (36–86)
Median time since diagnosis (range), years	2.8 (0.8–9.3)	3.0 (0.7–7.8)	2.9 (0.7–9.3)	2.8 (0.9–9.3)	3.5 (1.0–7.8)	3.0 (0.9–9.3)	Mean: 3.0
Mean number of prior lines of therapy	2.5	2.3	2.4	2.6	2.3	2.5	2.5
Prior Therapies							
Prior Bevacizumab, n (%)	13 (57)	16 (76)	29 (66)	12 (63)	12 (75)	24 (69)	6 (60)
Prior PARP inhibitor, n (%)	18 (78)	18 (86)	36 (82)	14 (74)	15 (94)	29 (83)	6 (60)

1. Phase 1 for patients with advanced ovarian cancer is named STRO-001-GM1, clinicaltrials.gov NCT identifier: NCT03748186.

2. Three patients were not evaluable for RECIST as they discontinued before receiving any post-baseline scan for the following reasons: clinical disease progression, adverse event, and consent withdrawn.

3. Cohort C enrolled 15 patients and interim data on 10 patients were made available as of December 8, 2022.

Q3W, every 3-week dosing; RECIST v1.1, Response Evaluation Criteria in Solid Tumors v1.1; TPS, tumor proportion score.

Luvelta Phase 1 Data Establishes FolRα-Selection Criteria

Patients who started at the higher dose level demonstrated higher ORR and median PFS

Dose-expansion efficacy data establishes TPS>25% as appropriate enrichment cutoff for luvelta
Patients who started at 5.2 mg/kg experienced 43.8% ORR, 5.4 months median DOR, and 6.6 months median PFS

RECIST-Evaluable ORR (%), Median DOR (%), and Median PFS

	All FolRα Patients and FolRα-Selection		Across TPS Scores			FolRα-Selected Patients Across Starting Dose Levels	
	All FolRα Patients	FolRα-Selected Patients (TPS>25%)	TPS≤25%	25%<TPS≤75%	TPS>75%	4.3 mg/kg Starting Dose	5.2 mg/kg Starting Dose
RECIST-Evaluable Patients	N=41	N=32	N=9	N=12	N=20	N=16	N=16
PR	13	12	1	4	8	5	7
ORR (95% CI), %	31.7 (18.1, 48.1)	37.5 (21.1, 56.3)	11.1 (0.3, 48.3)	33.3 (10.0, 65.1)	40.0 (19.1, 63.9)	31.3 (11.0, 58.7)	43.8 (19.8, 70.1)
Median DOR (95% CI), mo	5.4 (2.9, 11.0)	5.5 (2.5, 11.0)	2.9	5.6 (2.5, NE)	5.5 (2.4, NE)	13 (4.5, NE)	5.4 (2.4, 6.1)
Patients for median PFS	n=44	n=35	n=9	n=12	n=23	n=19	n=16
Median PFS (95% CI), mo	4.3 (4.0, 6.3)	6.1 (4.1, 7.0)	3.8 (1.3, 4.2)	6.4 (1.4, 10.4)	5.8 (4.0, 6.6)	6.1 (4.0, 8.3)	6.6 (2.9, 7.6)

Note: Data are as of November 8, 2022.

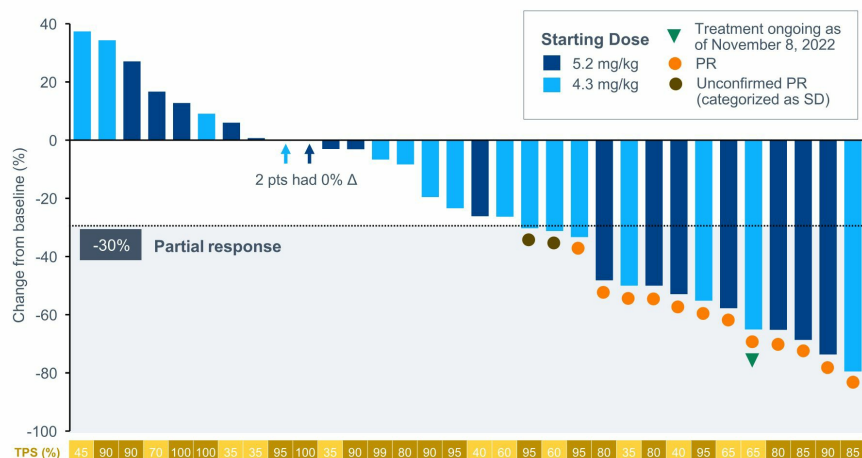
FolRα-selected defined as TPS>25%.

ORR, overall response rate; DOR, duration of response; PFS, progression free survival; PR, partial response; CI, confidence interval; mo, months; NE, not estimable.

Majority of FoIRα-Selected Patients Experienced Disease Control

12 FoIRα-selected patients demonstrated confirmed partial response

BOR: Maximum Reduction in Tumor Target Lesions in FoIRα-Selected Patients (N=32)⁽¹⁾



BOR in FoIRα-Selected Patients (N=32)

	Both Doses N=32	5.2 mg/kg n=16	4.3 mg/kg n=16
PR	12	7	5
ORR %	37.5	43.8	31.3
SD, n (%)	14 (43.8)	6 (37.5)	8 (50.0)
DCR ⁽²⁾ %	81.3%	81.3%	81.3%
PD, n (%)	6 (18.8)	3 (18.8)	3 (18.8)

FoIRα Stratification (N=32)

Number of patients (%)	5.2 mg/kg n=16	4.3 mg/kg n=16
25%<TPS≤75%	7 (43.8%)	5 (31.3%)
TPS>75%	9 (56.3%)	11 (68.8%)

Note: Data are as of November 8, 2022.

1. Data on FoIRα-selected patients who are evaluable for RECIST v1.1.

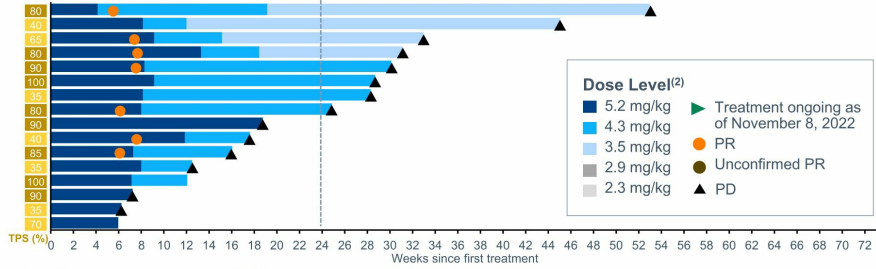
2. Disease control includes SD ≥ 6 weeks.

BOR, best overall response; SD, stable disease; DCR, disease control rate; PD, progressive disease.

Patients Had Durable Responses even with Dose Modifications

Patients who started at the higher dose experienced rapid time to response

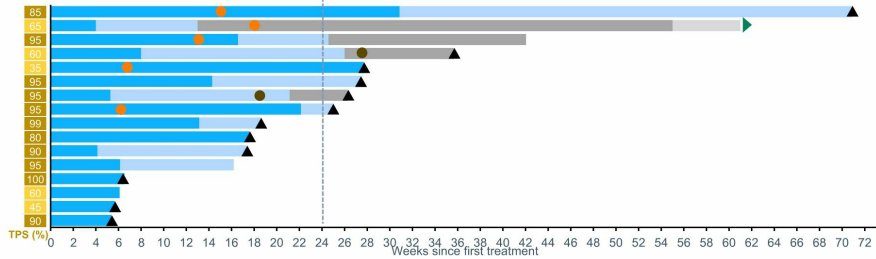
Starting Dose, 5.2 mg/kg (n=16)⁽¹⁾



Dose Intensity by Starting Dose (N=44)⁽³⁾

	5.2 mg/kg n=21	4.3 mg/kg n=23
Dose intensity (mg/kg per week)		
Mean	1.2	1.0
Min, max	0.8, 1.6	0.7, 1.5
Relative dose intensity (%)		
Mean	66.8	72.4
Min, max	48.5, 90.7	46.3, 105.1

Starting Dose, 4.3 mg/kg (n=16)⁽¹⁾



Summary of Dose Modification (N=44)⁽³⁾

Patients (%)	5.2 mg/kg n=21	4.3 mg/kg n=23
Dose delay	20 (95.2%)	15 (65.2%)
Dose interruption	2 (9.5%)	0
Dose Reduction	16 (76.2%)	11 (47.8%)

Note: Data are as of November 8, 2022.

1. Data are from Cohort A of Phase 1 dose expansion on FolRα-selected patients who are evaluable for RECIST v1.1.

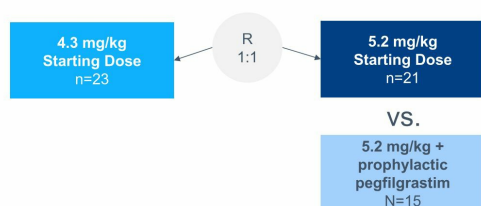
2. Patients are dosed Q3W, and patient scans generally coincide with every other cycle.

3. Data on all 44 patients in Cohort A of Phase 1 dose expansion, including patients who are FolRα-unselected and patients who are not RECIST v1.1 evaluable; PD, progressive disease; PR, partial response.

Cohort C as a Deep Dive Into Managing Neutropenia

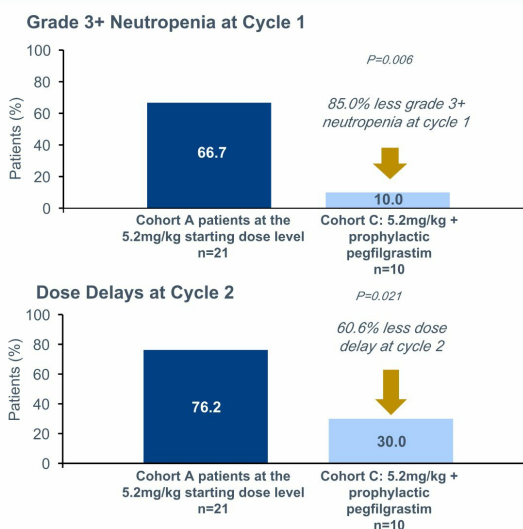
Prophylactic use of pegfilgrastim reduced Grade 3+ neutropenia and dose delays

Part 2 Dose-expansion cohorts - Cohort A vs. Cohort C



- Use of prophylactic pegfilgrastim on day 8 per protocol in Cohort C **reduced Grade 3+ neutropenia at Cycle 1 by 85%**, when compared to Cohort A
- On average, patients in Cohort A at the 5.2 mg/kg dose level were delayed in their dose for ~10 days
- **Dose delays were decreased by 60.6%** in Cohort C, when compared to Cohort A

Cohort A (patients at 5.2mg/kg starting dose) vs. Cohort C



Note: Cohort A data are as of November 8, 2022. Cohort C data are as of December 8, 2022.

Most Common Treatment-Emergent Adverse Event was Neutropenia

No new safety signals were observed, including the absence of meaningful drug-related ocular and lung AEs

Most Common Grade 3+ TEAEs (≥2 Subjects) by Dose and General Category







n (%)	4.3 mg/kg (n=23)			5.2 mg/kg (n=21)			Total (N=44)		
	Grade 3	Grade 4	Grade 5	Grade 3	Grade 4	Grade 5	Grade 3	Grade 4	Grade 5
Subjects reporting at least 1 event	12 (52)	6 (26)	0	8 (38)	11 (52)	1 (5)	20 (45)	17 (39)	1 (2)
Hematological									
Neutropenia ⁽¹⁾	10 (43)	5 (22)	0	4 (19)	11 (52)	1 (5)	14 (32)	16 (36)	1 (2)
Febrile neutropenia	1 (4)	0	0	0	0	1 (5)	1 (2)	0	1 (2)
White blood cell count decreased	5 (22)	1 (4)	0	2 (10)	2 (10)	0	7 (16)	3 (7)	0
Platelet count decreased	2 (9)	0	0	2 (10)	0	0	4 (9)	0	0
Thrombocytopenia	0	0	0	2 (10)	0	0	2 (5)	0	0
Anemia	1 (4)	0	0	5 (24)	0	0	6 (14)	0	0
Pain-related									
Neuralgia	2 (9)	0	0	1 (5)	0	0	3 (7)	0	0
Arthralgia	6 (26)	0	0	2 (10)	0	0	8 (18)	0	0
Bone pain	1 (4)	0	0	1 (5)	0	0	2 (5)	0	0
Gastrointestinal									
Small intestinal obstruction	2 (9)	0	0	1 (5)	0	0	3 (7)	0	0
Large intestinal obstruction	0	0	0	2 (10)	0	0	2 (5)	0	0
Diarrhea	2 (9)	0	0	0	1 (5)	0	2 (5)	1 (2)	0
Vomiting	0	0	0	2 (10)	0	0	2 (5)	0	0
Other									
Fatigue	3 (13)	0	0	1 (5)	0	0	4 (9)	0	0
Hyponatremia	3 (13)	0	0	0	0	0	3 (7)	0	0
Cataract	2 (9)	0	0	0	0	0	2 (5)	0	0
Activated partial thromboplastin time prolonged	2 (9)	0	0	0	0	0	2 (5)	0	0
Dehydration	1 (4)	0	0	1 (5)	0	0	2 (5)	0	0
Acute kidney injury	0	0	0	2 (10)	0	0	2 (5)	0	0
Pulmonary embolism	2 (9)	0	0	0	0	0	2 (5)	0	0

Note: Data are as of November 8, 2022 on all patients enrolled in Phase 1 dose expansion Cohort A.
1. Neutropenia included the following preferred terms: neutropenia, febrile neutropenia, and neutrophil count decreased.
AE, adverse events; TEAE, treatment-emergent adverse event

- **Neutropenia** was the most common G3+ AE and the most common reason for dose reduction
 - Higher incidence at 5.2 mg/kg
 - Other G3+ hematological TEAEs infrequently required dose modifications
- **Arthralgia** was the second most common G3+ and second most common TEAE leading to dose reduction
- **Other G3+ TEAE** which were unrelated to study drug
 - G3+ large and small intestinal obstructions as complications of metastatic cancer
 - G3+ acute kidney injury attributed to concomitant AEs (sepsis and dehydration) and not direct drug injury
 - G3+ pulmonary embolism in 2 patients

Luvelta (STRO-002) Has a Favorable Product Target Profile

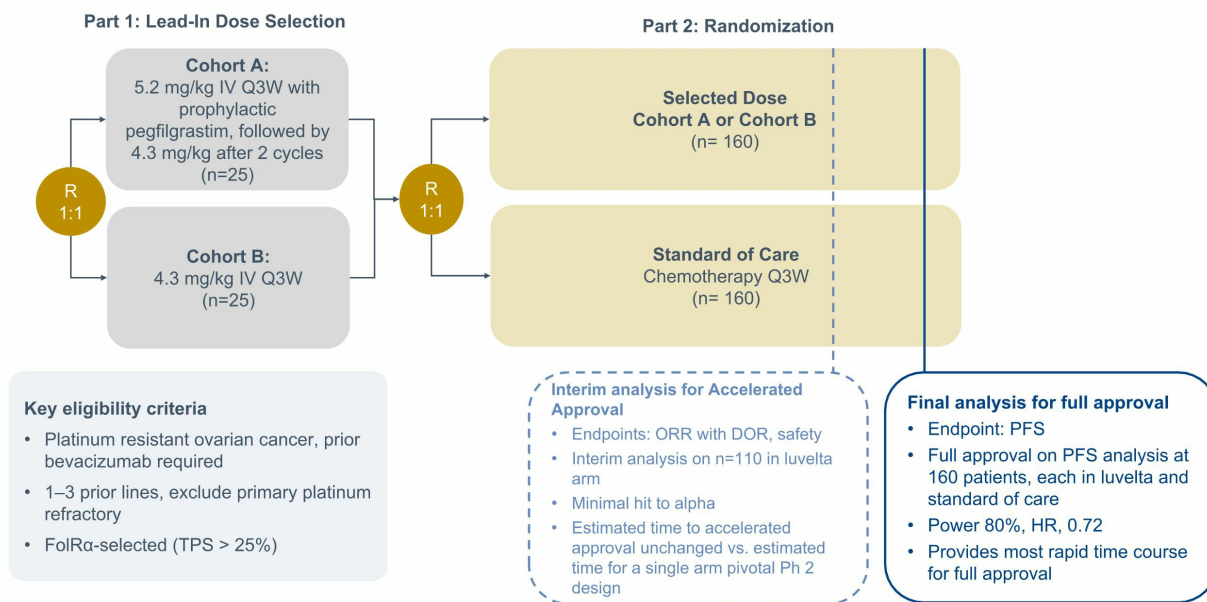
Confidence to move forward into registrational-enabling study

-  Potential to treat ~80% of patients with platinum-resistant ovarian cancer 
-  Efficacy demonstrated by ORR in the 31-44% range in FolRα-selected patients 
-  Manageable safety profile, even at the higher dose levels when given prophylactic pegfilgrastim 

Note: Cohort A data are as of November 8, 2022. Cohort C data are as of December 8, 2022.

Luvelta Clinical Integrated Strategy for Phase 2/3 Study, REFRaME

Integrated design to potentially support accelerated and full approvals in platinum-resistant ovarian cancer




HR, hazard ratio; IV, intravenous; Q3W, every 3 weeks.

TPS, tumor proportion score; ORR, overall response rate; DOR, duration of response; PFS, progression free survival; HR, hazard ratio.

Luvelta Provides Opportunities for Pipeline-in-a-Drug

Multiple shots on goal for commercial opportunities, beyond gynecological cancers

Treatment	Indication	Estimated Market Size/Incidence	
Monotherapy	Platinum-resistant ovarian cancer Phase 2/3	 Market size: ~4K patients per year in the U.S. (FolRα-selected)	Registrational-enabling, Fast-track designation Optimized dose of 4.3 mg/kg or 5.2 mg/kg + pegfilgrastim × 2 → 4.3 mg/kg
	Endometrial cancer Phase 1 expansion	 Incidence: Across all stages, not FolRα-selected, ~66K newly diagnosed/year	Requires baseline FolRα-expression level N=40, enrolling
	Pediatric RAM phenotype AML with CBF/GLIS2 mutation Compassionate use	 Market size: ~20 newly diagnosed patients per year	N=17+ Orphan drug designation Rare pediatric disease designation To discuss with FDA registrational path
	NSCLC Preclinical	 Incidence: Across all stages, squamous and non-squamous, not FolRα-selected. ~196K newly diagnosed patients/year	Translational research to define strategies for patient stratification based on FolRα
Combination therapy	Platinum-sensitive ovarian cancer combined with bevacizumab MT Phase 1 dose escalation/expansion	 Market size: ~2-3K patients per year in the U.S. (FolRα-selected)	Bevacizumab 15 mg/kg combined with STRO-002 starting at 3.5 mg/kg N=40, enrolling

AML, acute myeloid leukemia; NSCLC, non-small cell lung cancer.

Platinum-resistant ovarian cancer source: Sutro internal estimate, based on overall ovarian cancer incidence from SEER data, 2022 (accessed Jan. 2023)

Endometrial cancer source: SEER data, 2022 (accessed Jan. 2023)

RAM-AML source: 1. SEER data explorer, 2022 (accessed Jan. 2023) 2. Eidenschink Brodersen L, et al. A recurrent immunophenotype... Leukemia, 2016;30(10):2077-2080 3. Smith, JI, et al. Comprehensive Transcriptome Profiling of Cryptic CBFA2T3-GLIS2 Fusion-Positive AML... Clinical Cancer Research, vol. 26.3 (2020): 726-737

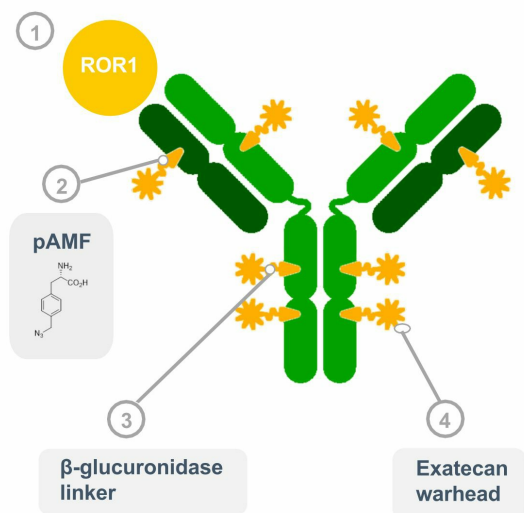
NSCLC source: 1. SEER data, 2022 (accessed Jan. 2023) 2. ASCO Cancer.net report, 2022 3. American Cancer Society Key Statistics for Lung Cancer, 2022

Platinum-sensitive ovarian cancer source: Sutro internal estimate, based on overall ovarian cancer incidence from SEER data, 2022 (accessed Jan. 2023)

STRO-003 and Emerging Research Portfolio

SUTRO
BIOPHARMA

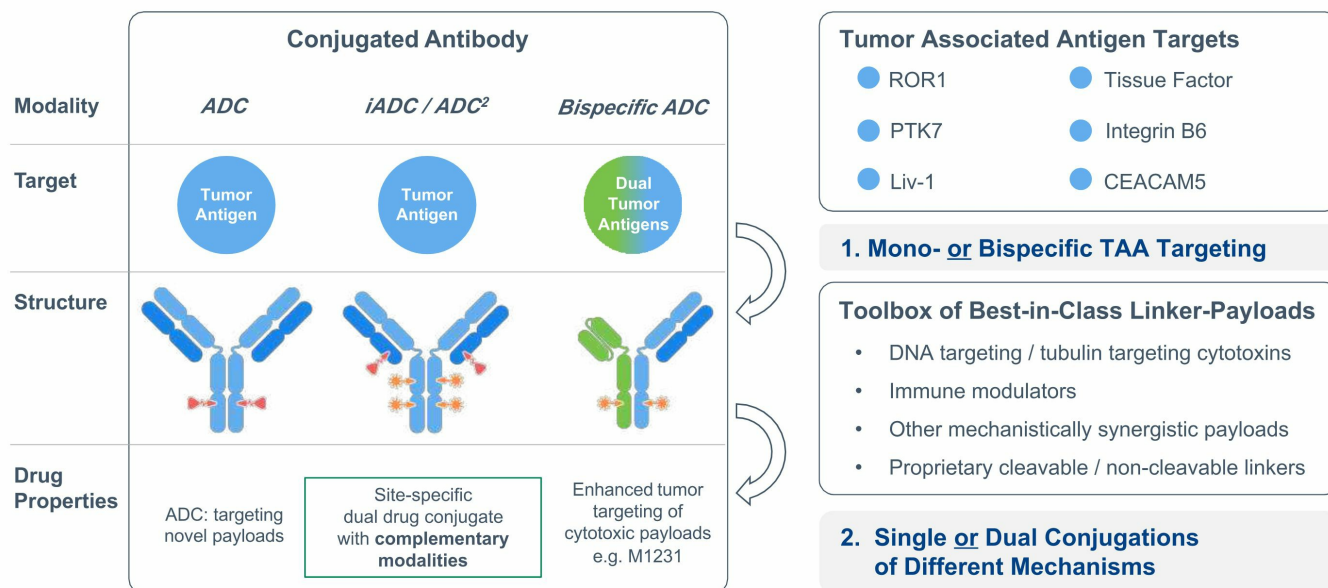
Our Innovative Design: STRO-003 is a Novel Optimized ROR1 ADC, Featuring TOPO-1 Inhibitors Linked with β -Glucuronidase Cleavable Linkers, DAR 8



STRO-003 is a single homogeneous antibody drug conjugate (ADC) with a drug-antibody ratio (DAR) of 8, targeting ROR1 tumor antigen

- 1 **Targeted ROR1 epitope** is overexpressed in diverse cancers including **hematological and solid tumor indications**
- 2 **Precisely positioned non-natural amino acids**, p-azidomethyl-L-phenylalanine (pAMF), **to enable DAR8** and optimal conjugation sites for enhanced performance and stability
- 3 **Stable β -glucuronidase cleavable linkers** demonstrate tumor specificity and encouraging preclinical tolerability. Preclinical data has shown marked **improvement over CatB linkers regarding neutropenia and lung tolerability issues** seen with tubulin and TOPO-1 inhibitors in the clinic
- 4 **Exatecan warhead inhibits TOPO-1 causing DNA disruption**. It elicits potent tumor cell killing, bystander activity and immunogenic cell death

Drug Discovery Platform Enables the Opportunity for Best-in-Class or First-in-Class Molecules
Precise novel design to enhance efficacy and safety across multiple modalities and targets



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

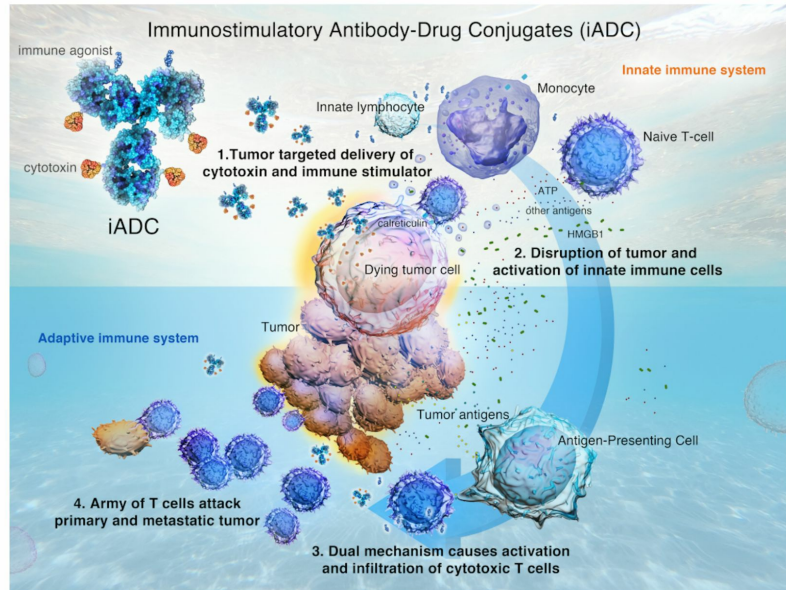
Featuring dual drug conjugation technology with both cytotoxin and immune modulator

Strategic iADC Collaboration

June 27, 2022



- **\$90M** upfront to develop iADCs for up to **three targets**
- **\$422.5M** in development, regulatory and commercial milestones for **each product candidate**, plus tiered royalties ranging from low-double digit to mid-teen percentages
- Builds on success of Sutro's **ADC platform and engineering expertise**
- Leverages Astellas' primary focus on **immuno-oncology**
- Sutro has the **option** to share **costs/profits** for U.S. product development
- Sutro can **develop iADCs outside of this collaboration** in other targets



Financial Overview

Well-capitalized through multiple funding sources

\$287.3M⁽¹⁾

in cash, cash equivalents &
marketable securities as of
September 30, 2022

Projected cash runway into

1H 2024⁽¹⁾,

based on current business plans and
assumptions

~1.5M shares
of **Vaxcyte**

(Nasdaq: PCVX) not included in the
above reported cash, as of
September 30, 2022⁽²⁾

Funding generated from
our collaborators of

~\$600M⁽³⁾

through September 30, 2022

1. Does not include the impact from the value of Sutro's holdings of Vaxcyte common stock (Nasdaq: PCVX).

2. The Company sold approximately 1 million shares of Vaxcyte common stock at fair market value during the period from October 1, 2022 through November 7, 2022.

3. Includes payments and equity investments received through September 30, 2022.

Experienced Leadership Team



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



Trevor Hallam, PhD
President of Research and
Chief Scientific Officer



Ed Albini, MBA
Chief Financial Officer



Linda Fitzpatrick
Chief People and
Communications Officer



Jane Chung, RPh
Chief Commercial Officer



Shabbir Anik, PhD
Chief Technical Operations Officer



Nicki Vasquez, PhD
Chief Portfolio Strategy and
Alliance Officer



Sutro Biopharma Announces Update from STRO-002, Luveltamab Tazevibulin (Luvelta), Phase 1 Dose-Expansion Study and Registration Plans in Advanced Ovarian Cancer

- *Results from the STRO-002 (luvelta) Phase 1 dose-expansion study demonstrate that FolR α -selected patients experienced meaningful clinical benefit, with 43.8% ORR, median DOR of 5.4 months, and median PFS of 6.6 months at the higher starting dose of 5.2mg/kg -*
- *Meaningful clinical benefit was observed in FolR α -selected patients, defined as TPS>25%, which is potentially 80% of the advanced ovarian cancer patient population -*
- *Safety profile is generally consistent with prior data with asymptomatic neutropenia being the primary adverse event; no new safety signals were observed -*
- *Use of prophylactic pegfilgrastim reduced dose delays and neutropenia -*
- *Sutro plans to initiate Phase 2/3 registration-directed study called REFRaME in second quarter of 2023 -*
- *Webcast to be held today at 1:30 pm PT, or 4:30 pm ET -*

SOUTH SAN FRANCISCO, Calif., January 9, 2023 – Sutro Biopharma, Inc. (Sutro or the Company) (NASDAQ: STRO), a clinical-stage oncology company pioneering site-specific and novel-format antibody drug conjugates (ADCs), today announced results from a Phase 1 dose-expansion study of STRO-002 (luvelta), a novel Folate receptor alpha (FolR α)-targeting ADC and interim safety data from exploratory cohort C, a cohort of 15 patients with advanced ovarian cancer treated at the higher dose of luvelta, (5.2mg/kg), along with prophylactic pegfilgrastim. Additionally, the company provided details on the design of the registration-directed Phase 2/3 study, REFRaME, to start in the second quarter of 2023.

Results demonstrated that luvelta provided substantial clinical benefit in FolR α -selected patients, defined by Tumor Proportion Score (TPS) of >25%, with a 37.5% overall response rate (ORR), median duration of response (median DOR) of 5.5 months, and median progression free survival (median PFS) of 6.1 months, regardless of starting dose. Results also demonstrated the higher starting dose of 5.2 mg/kg providing greater patient benefit compared to the lower dose of 4.3mg/kg. FolR α -selected patients account for approximately 80% of the patient population in advanced ovarian cancer, as represented in the patient stratification in the Phase 1 study.

Consistent with prior luvelta data, the primary adverse event from the dose-expansion cohort was predominantly asymptomatic neutropenia, with no meaningful ocular toxicity signals or complications reported.

In cohort C, an additional 15 patients with advanced ovarian cancer were enrolled and treated with prophylactic pegfilgrastim on Day 8 after each 5.2 mg/kg administration of luvelta. Initial data on neutropenia and dose delays were available on the first 10 patients, which showed that patients in cohort C experienced substantial decreases in neutropenia and potential increases in dose intensity, due to decreased dose delays.

“Today, patients with this form of heavily pre-treated ovarian cancer have extremely limited treatment options available to them, and unfortunately, experience poor outcomes,” said Dr. R. Wendel Naumann, Professor and Director of Gynecologic Oncology Research and Associate Medical Director of Clinical Trials at the Levine Cancer Institute, Atrium Health in Charlotte, North Carolina, and a co-lead principal investigator in the STRO-002-GM1 studies. “To date, luvelta continues to demonstrate encouraging efficacy data, which was further supported by results from the dose-expansion cohort. The safety profile was shown to be manageable and notably devoid of ocular complications across a broad spectrum of patients with FolR α -selected ovarian cancer.”

Commented Bill Newell, Chief Executive Officer of Sutro: “We are pleased with our Phase 1 dose-expansion efficacy data, which are generally consistent with previously reported results and demonstrate luvelta’s potential in a difficult-to-treat patient population. Through the addition of cohort C, we were able to evaluate patients at the higher dose of luvelta at 5.2mg/kg with the use of prophylactic pegfilgrastim and determined that the rates of asymptomatic neutropenia and dose delays could be diminished. Our meeting with the FDA in 2022 provided a framework for our path forward on the registration-directed Phase 2/3 trial for platinum resistant ovarian cancer patients, called REFRaME, which we plan to initiate in the second quarter of 2023.”

Summary of Results from Phase 1 Dose-Expansion Study

•Based on the results, luvelta has demonstrated the potential to provide meaningful clinical benefit to a substantially broader patient population than the on-label patient population of the approved FolR α -targeting agent

- oPatients who were FolR α -selected, defined by TPS>25%, regardless of starting dose, demonstrated an ORR of 37.5% (n=32) with a median DOR of 5.5 months (n=12) and a median PFS of 6.1 months (n=35)
- oTargeted luvelta patient population is approximately 80% of advanced ovarian cancer patients based on pooled Phase 1 biomarker data
- oLuvelta demonstrated a FolR α -dependent response, with patients who were unselected for FolR α (TPS \leq 25%) demonstrating an 11.1% ORR (n=9) with a median DOR of 2.9 months (n=1) and a median PFS of 3.8 months (n=9)

•Luvelta, when given to patients at a starting dose of 5.2 mg/kg, provided greater patient benefit than a starting dose of 4.3 mg/kg

- oFolR α -selected patients given the higher dose of luvelta (5.2 mg/kg) demonstrated higher response rates
 - ORR of 43.8% (n=16)
 - Median DOR of 5.4 months (n=7)
 - Median PFS of 6.6 months (n=16)
-

oFolR α -selected patients given the lower dose of luvelta (4.3 mg/kg) demonstrated

- ORR of 31.3% (n=16)
- Median DOR of 13 months (n=5)
- Median PFS of 6.1 months (n=19)

•Consistent with earlier reported data, the primary adverse event from the dose-expansion cohort was asymptomatic, transient neutropenia

•Cohort C was initiated to explore the use of prophylactic pegfilgrastim for patients treated with the higher dose of luvelta (5.2mg/kg). Early results in the initial 10 patients in cohort C, when compared to patients who were not given prophylactic pegfilgrastim in the dose-expansion cohort at the higher dose (5.2mg/kg), showed substantial reductions in Grade 3+ neutropenia and in instances of dose delays

oGrade 3+ neutropenia was reduced from 66.7% to 10.0%, resulting in an 85.0% decrease in Grade 3+ neutropenia rates at the first cycle of luvelta (p=0.006)

oInstances of dose delays at the second cycle of luvelta were reduced by 60.6% (p=0.021)

Planned Phase 2/3 Study Details

As discussed with the U.S. Food and Drug Administration (FDA), the Phase 2/3 REFraME study is planned to begin with a randomized, run-in dose confirmation phase. In this phase of the trial, 25 patients will be evaluated at the 5.2 mg/kg dose with pegfilgrastim delivered prophylactically for two cycles followed by a step-down dose to 4.3 mg/kg. The other 25 patients will be evaluated from the start at the 4.3 mg/kg dose without prophylactic pegfilgrastim. Following this 50-patient phase of the study, additional patients will be randomized between these two luvelta dose levels, and standard of care (chemotherapy). Upon agreement with FDA on the go-forward dose versus standard of care, the dose level of luvelta not chosen will be dropped. Upon having data on approximately 110 patients in the selected dose of luvelta arm, Sutro will look to apply for accelerated approval based on ORR as the primary endpoint. At the end of the Phase 3 portion of the trial, full approval can be sought based on PFS as the primary endpoint comparing the luvelta arm (n=160) and the standard of care arm (n=160).

Webcast Details

The data will be presented by members of the Sutro management team and Dr. R. Wendel Naumann, a co-lead principal investigator in the STRO-002-GM1 studies. Dr. Naumann is a Professor and Director of Gynecologic Oncology Research and Associate Medical Director of Clinical Trials at the Levine Cancer Institute, Atrium Health in Charlotte, North Carolina. Dr. Naumann is also a member of Sutro's Clinical Advisory Board.

•Monday, January 9, 2023 at 1:30 pm PT, or 4:30 pm ET

•To access and register for the live audio webcast, please go to <https://ir.sutro.bio.com/news-events/ir-calendar>



The webcast information will also be available through the News & Events section of the Investors portion of the Company's website at www.sutro.bio.com. An archived replay will be available for at least 30 days after the event.

About Sutro Biopharma

Sutro Biopharma, Inc., headquartered in South San Francisco, is a clinical-stage oncology company pioneering site-specific and novel-format antibody drug conjugates (ADCs). Sutro has two wholly owned ADCs in the clinic—STRO-002, a folate receptor alpha (FolR α)-targeting ADC, in clinical studies for ovarian and endometrial cancers; and STRO-001, a CD74-targeting ADC, in clinical studies for B-cell malignancies. Additionally, Sutro is collaborating with Bristol Myers Squibb (BMS) on CC-99712, a BCMA-targeting ADC in the clinic for patients with multiple myeloma; with Merck KGaA, Darmstadt, Germany, known as EMD Serono in the U.S. and Canada (EMD Serono), on M1231, a MUC1-EGFR bispecific ADC in clinical studies for patients with solid tumors, particularly non-small cell lung cancer (NSCLC) and esophageal squamous cell carcinoma; with Merck, known as MSD outside of the United States and Canada, on MK-1484, a selective IL-2 agonist in clinical studies as a monotherapy and in combination with pembrolizumab for the treatment of solid tumors; and with Astellas Pharma (Astellas) on novel modality, immunostimulatory antibody-drug conjugates (iADCs). Sutro's platform technology also enabled the spin out of Vaxcyte (Nasdaq: PCVX) and the creation of VAX-24, a 24-valent pneumococcal conjugate vaccine in clinical studies for the prevention of invasive pneumococcal disease. Sutro's rational design and precise protein engineering has enabled six product candidates in the clinic. Follow Sutro on Twitter, @SutroBio, and at www.sutro.bio.com to learn more about our passion for changing the future of oncology.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, including, but not limited to, anticipated preclinical and clinical development activities, timing of announcements of clinical results, trial initiation and regulatory filings, potential benefits of STRO-002 and the Company's other product candidates and platform, potential future milestone and royalty payments, and potential market opportunities for STRO-002 and the Company's other product candidates. All statements other than statements of historical fact are statements that could be deemed forward-looking statements. Although the Company believes that the expectations reflected in such forward-looking statements are reasonable, the Company cannot guarantee future events, results, actions, levels of activity, performance or achievements, and the timing and results of biotechnology development and potential regulatory approval is inherently uncertain. Forward-looking statements are subject to risks and uncertainties that may cause the Company's actual activities or results to differ significantly from those expressed in any forward-looking statement, including risks and uncertainties related to the Company's ability to advance its product candidates, the receipt and timing of potential regulatory designations, approvals and commercialization of product candidates and the Company's ability to successfully leverage Fast Track designation, the market size for the Company's product candidates to be smaller than anticipated, the impact of the COVID-19 pandemic on the Company's business, clinical trial sites, supply chain and manufacturing facilities, the Company's ability to maintain and recognize the benefits of certain designations received by product candidates, the timing and results of preclinical and clinical trials, the Company's ability to fund development activities and achieve development goals, the Company's ability to protect intellectual property, the value of the



Company's holdings of Vaxcyte common stock, and the Company's commercial collaborations with third parties and other risks and uncertainties described under the heading "Risk Factors" in documents the Company files from time to time with the Securities and Exchange Commission. These forward-looking statements speak only as of the date of this press release, and the Company undertakes no obligation to revise or update any forward-looking statements to reflect events or circumstances after the date hereof.

Investor Contact

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ajchang@sutro.bio.com

Media Contact

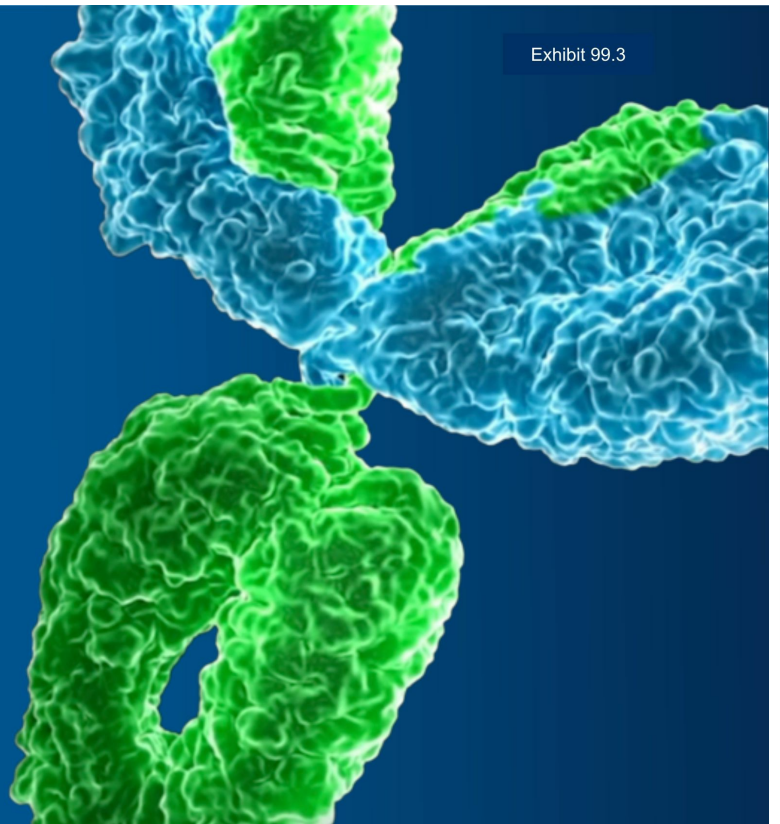
Amy Bonanno
Solebury Strategic Communications
(914) 450-0349
abonanno@soleburystrat.com



Exhibit 99.3

Luveltamab Tazevibulin (Luvelta, STRO-002) Phase 1 Data and Regulatory Strategy

January 9, 2023



Agenda for Today

January 9, 2023

Topic	Speaker
Welcome and Introduction Forward-Looking Statements	Ed Albini , Chief Financial Officer, Sutro Biopharma Bill Newell , Chief Executive Officer, Sutro Biopharma
Luvelta (STRO-002) Phase 1 Dose-Expansion Study Results	Dr. R. Wendel Naumann , Professor and Director of Gynecologic Oncology Research, Associate Medical Director of Clinical Trials at the Levine Cancer Institute, Atrium Health
Registrational Path Forward for Luvelta	Bill Newell Dr. Stan Frankel , Scientific Advisory Board member, Sutro Biopharma
Market Opportunity for Ovarian Cancer Treatment	Bill Newell Jane Chung , Chief Commercial Officer, Sutro Biopharma
Closing Remarks	Bill Newell
Q&A	Bill Newell Dr. R. Wendel Naumann Dr. Stan Frankel Trevor Hallam , President, Research & Chief Scientific Officer, Sutro Biopharma Jane Chung

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 therapeutic benefits and economic value of our product candidates, potential growth opportunities, financing plans, potential future milestone and royalty payments, competitive position, industry environment and potential market opportunities for the Company’s 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, timing and results of preclinical and clinical trials, and the expected impact of the COVID-19 pandemic on our operations. 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.



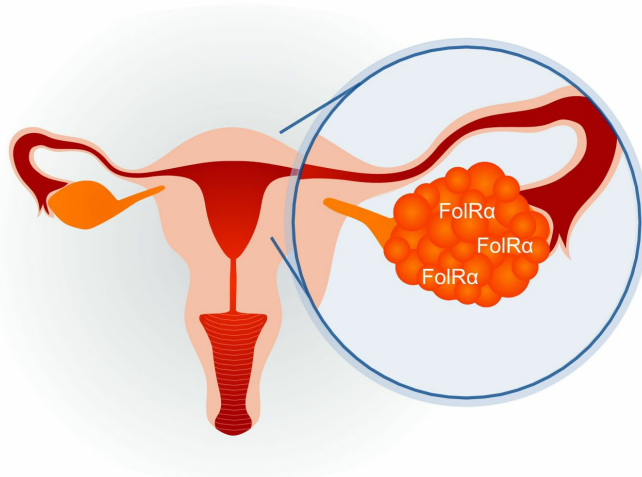
Luveltamab Tazevibulin (Luvelta, STRO-002) Phase 1 Dose-Expansion Study

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Advanced Ovarian Cancer Has a High Unmet Medical Need

Due to advanced stage of disease at diagnosis and limited progress of available treatments

- Ovarian cancer is the most common cause of death from gynecological cancers
 - Accounts for **2.1%** of all estimated cancer deaths^(1,2)
 - Almost half of affected women live less than **five years** following diagnosis^{1,2}
- In 2022, an estimated **19,880** new ovarian cancer cases were diagnosed in the United States^(1,2)
 - Total estimated death from this disease was 12,810
- Folate receptor alpha, or **FolRa** is highly expressed in ovarian cancer
 - Associated with disease burden and treatment outcomes^(3,4)



FolRa, folate receptor alpha.

1. Cancer facts and figures 2022. <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2022/2022-cancer-facts-and-figures.pdf>. Accessed December 14, 2022.

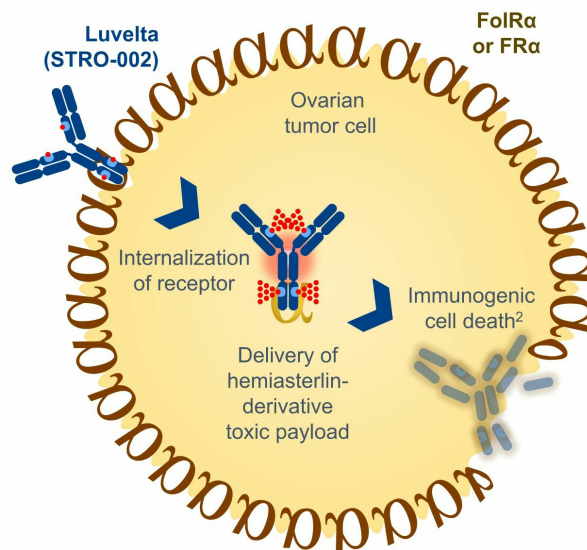
2. 2022 Estimates. American Cancer Society. [https://cancerstatisticscenter.cancer.org/?ga=2.9856755.798860474.1671221534-46877757.1671052212#/#/](https://cancerstatisticscenter.cancer.org/?ga=2.9856755.798860474.1671221534-46877757.1671052212#/). Accessed December 16, 2022.

3. Birrer MJ, et al. *Oncologist*. 2019;24:425–429. 3. <https://www.nature.com/articles/s41416-022-02031-x>

Luveltamab Tazevibulin (Luvelta, STRO-002)

Next-generation ADC designed to have efficacy across a broad range of FolR α -expression levels

- Luvelta (STRO-002) is a homogenous ADC, targeting folate receptor alpha, or FolR α
 - Conjugation of linker payload to 4 precisely positioned conjugatable non-natural amino acids
- Cathepsin B linker, which is a stable protease-cleavable linker
 - Positioning of linker payloads allows for the cleaving of cathepsin B linker more efficiently, rapidly releasing cytotoxin that is accumulated in the tumor
 - Prevents release of payload in circulation and the free payload is rapidly cleared, therefore preventing collateral systemic tolerability issues
- Hemisterlin-derivative⁽¹⁾ cytotoxic payload, with various mechanisms
 - Relatively poor ability of tumor efflux pumps to extrude the hemisterlin derivative
 - **Bystander Effect:** Once the tumor cell dies, the cytotoxin is released into the tumor micro-environment, where it can kill surrounding tumor cells
 - **Immunogenic Cell Death⁽²⁾:** Stress to the tumor cell induces signals to the innate immune system that helps remove the tumor



ADC, antibody drug conjugate. DAR, drug antibody ratio.

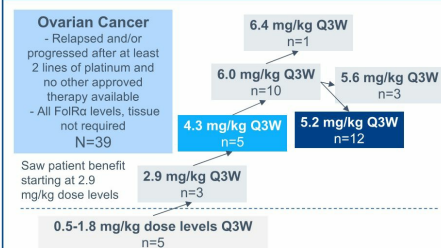
1. Sutro-proprietary tubulin-targeting 3-aminophenol hemisterlin warhead, SC209.

2. Based on STRO-002 pre-clinical models showing immune stimulation at site of tumor upon cell death

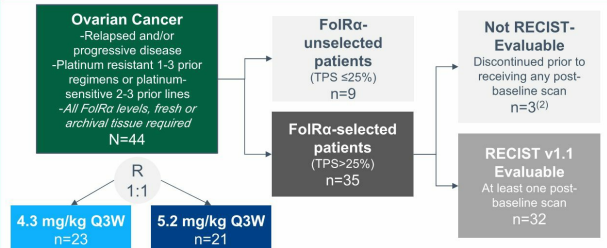
Two-Part Phase 1 Study for Patients with Advanced Ovarian Cancer⁽¹⁾

Explored dosing regimen and biomarker levels for which luvelta is optimal

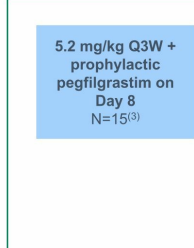
Part 1: Dose-escalation cohort



Part 2: Dose-expansion cohort – Cohort A



Part 2: Cohort C



Patient Baseline Demographics – Part 2: Dose-Expansion – Cohort A

	All Patients Enrolled (N=44)			FolRα-Selected Patients (N=35)			Cohort C
	4.3 mg/kg n=23	5.2 mg/kg n=21	Total N=44	4.3 mg/kg n=19	5.2 mg/kg n=16	Total N=35	Total N=10 ⁽³⁾
Median age (range), years	63 (39–91)	56 (40–72)	60 (39–91)	63 (39–91)	55.5 (45–72)	60 (39–91)	67 (36–86)
Median time since diagnosis (range), years	2.8 (0.8–9.3)	3.0 (0.7–7.8)	2.9 (0.7–9.3)	2.8 (0.9–9.3)	3.5 (1.0–7.8)	3.0 (0.9–9.3)	Mean: 3.0
Mean number of prior lines of therapy	2.5	2.3	2.4	2.6	2.3	2.5	2.5
Prior Therapies							
Prior Bevacizumab, n (%)	13 (57)	16 (76)	29 (66)	12 (63)	12 (75)	24 (69)	6 (60)
Prior PARP inhibitor, n (%)	18 (78)	18 (86)	36 (82)	14 (74)	15 (94)	29 (83)	6 (60)

1. Phase 1 for patients with advanced ovarian cancer is named STRO-001-GM1, clinicaltrials.gov NCT identifier: NCT03748186.

2. Three patients were not evaluable for RECIST as they discontinued before receiving any post-baseline scan for the following reasons: clinical disease progression, adverse event, and consent withdrawn.

3. Cohort C enrolled 15 patients and interim data on 10 patients were made available as of December 8, 2022.

Q3W, every 3-week dosing; RECIST v1.1, Response Evaluation Criteria in Solid Tumors v1.1; TPS, tumor proportion score.

Luvelta Phase 1 Data Establishes FOLRα-Selection Criteria

Patients who started at the higher dose level demonstrated higher ORR and median PFS

Dose-expansion efficacy data establishes TPS>25% as appropriate enrichment cutoff for luvelta
Patients who started at 5.2 mg/kg experienced 43.8% ORR, 5.4 months median DOR, and 6.6 months median PFS

RECIST-Evaluable ORR (%), Median DOR (%), and Median PFS

	All FOLRα Patients and FOLRα-Selection		Across TPS Scores			FOLRα-Selected Patients Across Starting Dose Levels	
	All FOLRα Patients	FOLRα-Selected Patients (TPS>25%)	TPS≤25%	25%<TPS≤75%	TPS>75%	4.3 mg/kg Starting Dose	5.2 mg/kg Starting Dose
RECIST-Evaluable Patients	N=41	N=32	N=9	N=12	N=20	N=16	N=16
PR	13	12	1	4	8	5	7
ORR (95% CI), %	31.7 (18.1, 48.1)	37.5 (21.1, 56.3)	11.1 (0.3, 48.3)	33.3 (10.0, 65.1)	40.0 (19.1, 63.9)	31.3 (11.0, 58.7)	43.8 (19.8, 70.1)
Median DOR (95% CI), mo	5.4 (2.9, 11.0)	5.5 (2.5, 11.0)	2.9	5.6 (2.5, NE)	5.5 (2.4, NE)	13 (4.5, NE)	5.4 (2.4, 6.1)
Patients for median PFS	n=44	n=35	n=9	n=12	n=23	n=19	n=16
Median PFS (95% CI), mo	4.3 (4.0, 6.3)	6.1 (4.1, 7.0)	3.8 (1.3, 4.2)	6.4 (1.4, 10.4)	5.8 (4.0, 6.6)	6.1 (4.0, 8.3)	6.6 (2.9, 7.6)

Note: Data are as of November 8, 2022.

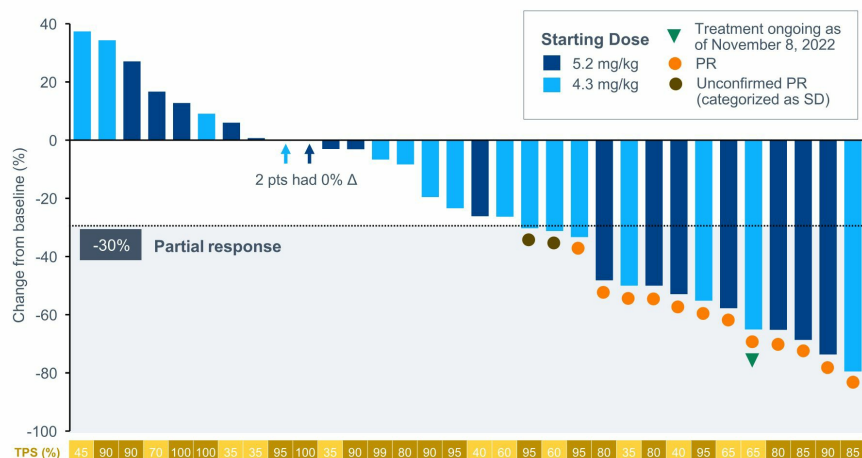
FOLRα-selected defined as TPS>25%.

ORR, overall response rate; DOR, duration of response; PFS, progression free survival; PR, partial response; CI, confidence interval; mo, months; NE, not estimable.

Majority of FoIRα-Selected Patients Experienced Disease Control

12 FoIRα-selected patients demonstrated confirmed partial response

BOR: Maximum Reduction in Tumor Target Lesions in FoIRα-Selected Patients (N=32)⁽¹⁾



BOR in FoIRα-Selected Patients (N=32)

	Both Doses N=32	5.2 mg/kg n=16	4.3 mg/kg n=16
PR	12	7	5
ORR %	37.5	43.8	31.3
SD, n (%)	14 (43.8)	6 (37.5)	8 (50.0)
DCR ⁽²⁾ %	81.3%	81.3%	81.3%
PD, n (%)	6 (18.8)	3 (18.8)	3 (18.8)

FoIRα Stratification (N=32)

Number of patients (%)	5.2 mg/kg n=16	4.3 mg/kg n=16
25%<TPS≤75%	7 (43.8%)	5 (31.3%)
TPS>75%	9 (56.3%)	11 (68.8%)

Note: Data are as of November 8, 2022.

1. Data on FoIRα-selected patients who are evaluable for RECIST v1.1.

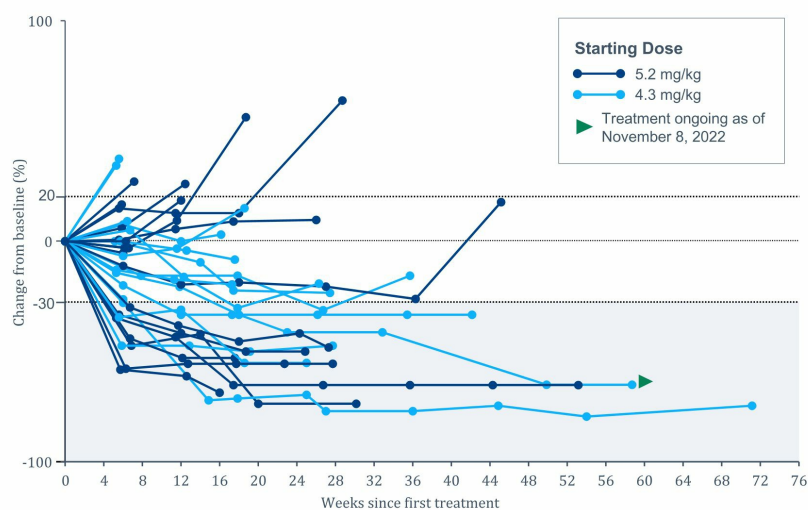
2. Disease control includes SD ≥ 6 weeks.

BOR, best overall response; SD, stable disease; DCR, disease control rate; PD, progressive disease.

Robust Anti-Tumor Activity and Disease Control Demonstrated

Responders experienced rapid tumor reduction or a steady deepening of response

Change in Sum of Diameters for Target Lesions Over Time in FolRα-Selected Patients (N=32)⁽¹⁾



Time to Response for Responders

Starting dose level (mg/kg)	Number of PRs	Mean in weeks (St. Dev)	Range in weeks (min, max)
5.2	n=7	6.3 (0.6)	(5.4, 7.0)
4.3	n=5	11.4 (5.5)	(5.7, 18.1)

Patients at the **5.2mg/kg** starting dose level demonstrated **faster time to response**

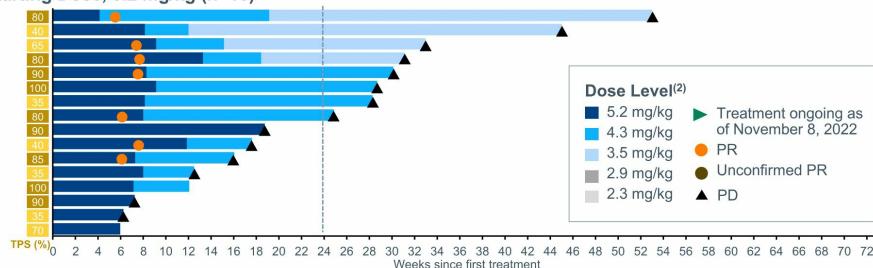
Note: Data are as of November 8, 2022.

1. Data are from Cohort A of Phase 1 dose expansion on FolRα-selected patients who are evaluable for RECIST v1.1.

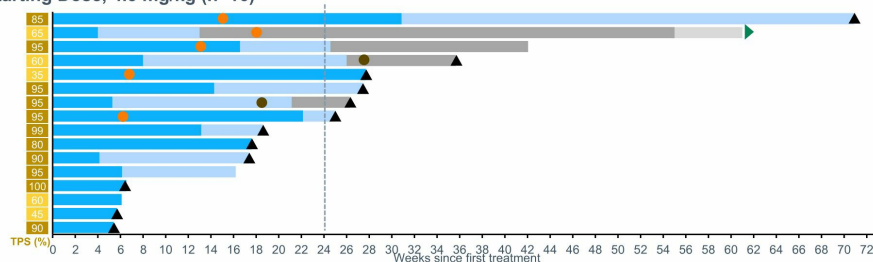
Patients Had Durable Responses even with Dose Modifications

Patients who started at the higher dose experienced rapid time to response

Starting Dose, 5.2 mg/kg (n=16)⁽¹⁾



Starting Dose, 4.3 mg/kg (n=16)⁽¹⁾



Note: Data are as of November 8, 2022.

1. Data are from Cohort A of Phase 1 dose expansion on FolRα-selected patients who are evaluable for RECIST v1.1.

2. Patients are dosed Q3W, and patient scans generally coincide with every other cycle.

3. Data on all 44 patients in Cohort A of Phase 1 dose expansion, including patients who are FolRα-unselected and patients who are not RECIST v1.1 evaluable; PD, progressive disease; PR, partial response.

Dose Intensity by Starting Dose (N=44)⁽³⁾

	5.2 mg/kg n=21	4.3 mg/kg n=23
Dose intensity (mg/kg per week)		
Mean	1.2	1.0
Min, max	0.8, 1.6	0.7, 1.5
Relative dose intensity (%)		
Mean	66.8	72.4
Min, max	48.5, 90.7	46.3, 105.1

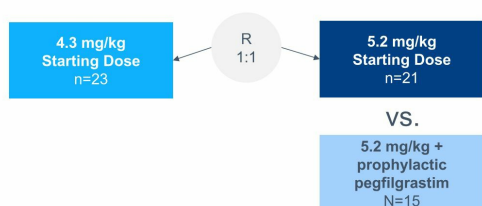
Summary of Dose Modification (N=44)⁽³⁾

Patients (%)	5.2 mg/kg n=21	4.3 mg/kg n=23
Dose delay	20 (95.2%)	15 (65.2%)
Dose interruption	2 (9.5%)	0
Dose Reduction	16 (76.2%)	11 (47.8%)

Cohort C as a Deep Dive Into Managing Neutropenia

Prophylactic use of pegfilgrastim reduced Grade 3+ neutropenia and dose delays

Part 2 Dose-expansion cohorts - Cohort A vs. Cohort C

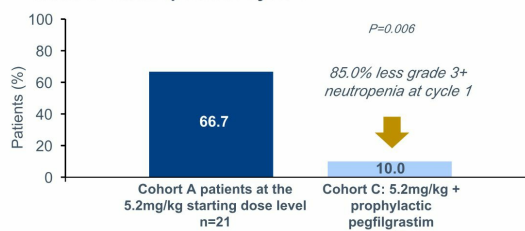


- Use of prophylactic pegfilgrastim on day 8 per protocol in Cohort C **reduced Grade 3+ neutropenia at Cycle 1 by 85%**, when compared to Cohort A
- On average, patients in Cohort A at the 5.2 mg/kg dose level were delayed in their dose for ~10 days
- **Dose delays were decreased by 60.6%** in Cohort C, when compared to Cohort A

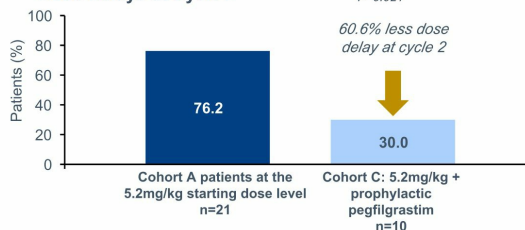
Note: Cohort A data are as of November 8, 2022. Cohort C data are as of December 8, 2022.

Cohort A (patients at 5.2mg/kg starting dose) vs. Cohort C

Grade 3+ Neutropenia at Cycle 1



Dose Delays at Cycle 2



Most Common Treatment-Emergent Adverse Event was Neutropenia

No new safety signals were observed, including the absence of meaningful drug-related ocular and lung AEs

Most Common Grade 3+ TEAEs (≥2 Subjects) by Dose and General Category

n (%)	4.3 mg/kg (n=23)			5.2 mg/kg (n=21)			Total (N=44)		
	Grade 3	Grade 4	Grade 5	Grade 3	Grade 4	Grade 5	Grade 3	Grade 4	Grade 5
Subjects reporting at least 1 event	12 (52)	6 (26)	0	8 (38)	11 (52)	1 (5)	20 (45)	17 (39)	1 (2)
Hematological									
Neutropenia ⁽¹⁾	10 (43)	5 (22)	0	4 (19)	11 (52)	1 (5)	14 (32)	16 (36)	1 (2)
Febrile neutropenia	1 (4)	0	0	0	0	1 (5)	1 (2)	0	1 (2)
White blood cell count decreased	5 (22)	1 (4)	0	2 (10)	2 (10)	0	7 (16)	3 (7)	0
Platelet count decreased	2 (9)	0	0	2 (10)	0	0	4 (9)	0	0
Thrombocytopenia	0	0	0	2 (10)	0	0	2 (5)	0	0
Anemia	1 (4)	0	0	5 (24)	0	0	6 (14)	0	0
Pain-related									
Neuralgia	2 (9)	0	0	1 (5)	0	0	3 (7)	0	0
Arthralgia	6 (26)	0	0	2 (10)	0	0	8 (18)	0	0
Bone pain	1 (4)	0	0	1 (5)	0	0	2 (5)	0	0
Gastrointestinal									
Small intestinal obstruction	2 (9)	0	0	1 (5)	0	0	3 (7)	0	0
Large intestinal obstruction	0	0	0	2 (10)	0	0	2 (5)	0	0
Diarrhea	2 (9)	0	0	0	1 (5)	0	2 (5)	1 (2)	0
Vomiting	0	0	0	2 (10)	0	0	2 (5)	0	0
Other									
Fatigue	3 (13)	0	0	1 (5)	0	0	4 (9)	0	0
Hyponatremia	3 (13)	0	0	0	0	0	3 (7)	0	0
Cataract	2 (9)	0	0	0	0	0	2 (5)	0	0
Activated partial thromboplastin time prolonged	2 (9)	0	0	0	0	0	2 (5)	0	0
Dehydration	1 (4)	0	0	1 (5)	0	0	2 (5)	0	0
Acute kidney injury	0	0	0	2 (10)	0	0	2 (5)	0	0
Pulmonary embolism	2 (9)	0	0	0	0	0	2 (5)	0	0


Note: Data are as of November 8, 2022 on all patients enrolled in Phase 1 dose expansion Cohort A.
1. Neutropenia included the following preferred terms: neutropenia, febrile neutropenia, and neutrophil count decreased.
AE, adverse events; TEAE, treatment-emergent adverse event

- **Neutropenia** was the most common G3+ AE and the most common reason for dose reduction
 - Higher incidence at 5.2 mg/kg
 - Other G3+ hematological TEAEs infrequently required dose modifications
- **Arthralgia** was the second most common G3+ and second most common TEAE leading to dose reduction
- **Other G3+ TEAE** which were unrelated to study drug
 - G3+ large and small intestinal obstructions as complications of metastatic cancer
 - G3+ acute kidney injury attributed to concomitant AEs (sepsis and dehydration) and not direct drug injury
 - G3+ pulmonary embolism in 2 patients



Registrational Path Forward for Luveltamab Tazevibulin (Luvelta, STRO-002)

Luvelta (STRO-002) Has a Favorable Product Target Profile



Confidence to move forward into registrational-enabling study

- 


Potential to treat ~80% of patients with platinum-resistant ovarian cancer


- 

Efficacy demonstrated by ORR in the 31-44% range in FolRα-selected patients


- 

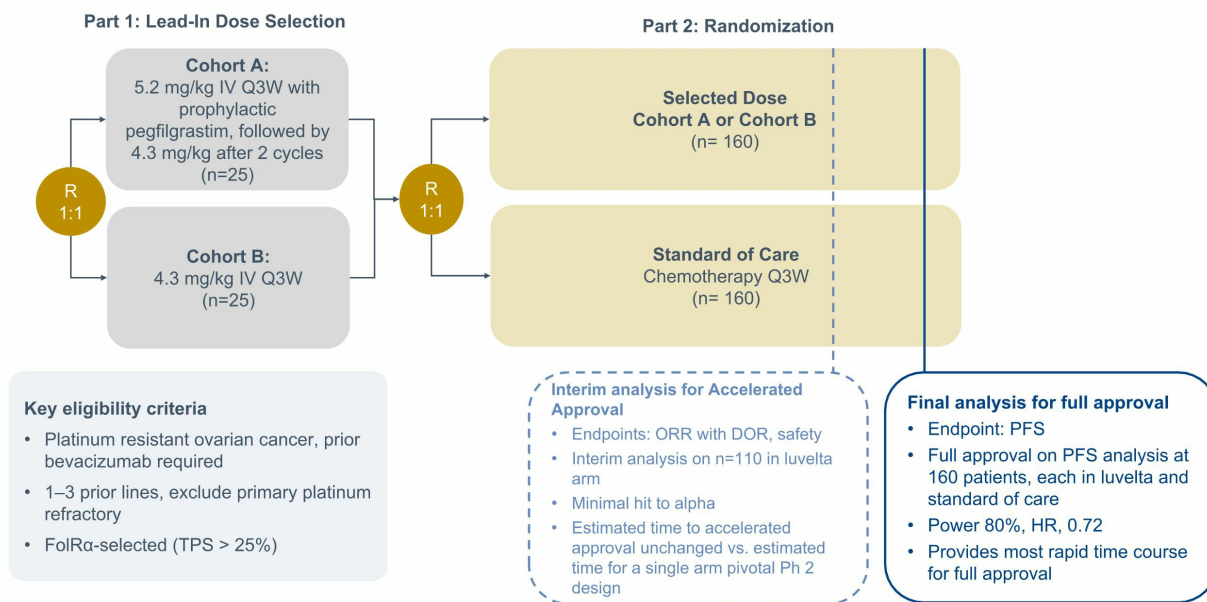
Manageable safety profile, even at the higher dose levels when given prophylactic pegfilgrastim



Note: Cohort A data are as of November 8, 2022. Cohort C data are as of December 8, 2022.

Luvelta Clinical Integrated Strategy for Phase 2/3 Study, REFRaME

Integrated design to potentially support accelerated and full approvals in platinum-resistant ovarian cancer



HR, hazard ratio; IV, intravenous; Q3W, every 3 weeks.

TPS, tumor proportion score; ORR, overall response rate; DOR, duration of response; PFS, progression free survival; HR, hazard ratio.








Market Opportunity for Luveltamab Tazevibulin (Luvelta, STRO-002) and Ovarian Cancer

SUTRO
BIOPHARMA

Luvelta Provides Opportunities for Pipeline-in-a-Drug

Multiple shots on goal for commercial opportunities, beyond gynecological cancers

Treatment	Indication	Estimated Market Size/Incidence	
Monotherapy	Platinum-resistant ovarian cancer Phase 2/3	 Market size: ~4K patients per year in the U.S. (FolRα-selected)	Registrational-enabling, Fast-track designation Optimized dose of 4.3 mg/kg or 5.2 mg/kg + pegfilgrastim × 2 → 4.3 mg/kg
	Endometrial cancer Phase 1 expansion	 Incidence: Across all stages, not FolRα-selected, ~66K newly diagnosed/year	Requires baseline FolRα-expression level N=40, enrolling
	Pediatric RAM phenotype AML with CBF/GLIS2 mutation Compassionate use	 Market size: ~20 newly diagnosed patients per year	N=17+ Orphan drug designation Rare pediatric disease designation To discuss with FDA registrational path
	NSCLC Preclinical	 Incidence: Across all stages, squamous and non-squamous, not FolRα-selected. ~196K newly diagnosed patients/year	Translational research to define strategies for patient stratification based on FolRα
Combination therapy	Platinum-sensitive ovarian cancer combined with bevacizumab MT Phase 1 dose escalation/expansion	 Market size: ~2-3K patients per year in the U.S. (FolRα-selected)	Bevacizumab 15 mg/kg combined with STRO-002 starting at 3.5 mg/kg N=40, enrolling

AML, acute myeloid leukemia; NSCLC, non-small cell lung cancer.

Platinum-resistant ovarian cancer source: Sutro internal estimate, based on overall ovarian cancer incidence from SEER data, 2022 (accessed Jan. 2023)

Endometrial cancer source: SEER data, 2022 (accessed Jan. 2023)

RAM-AML source: 1. SEER data explorer, 2022 (accessed Jan. 2023) 2. Eidenschink Brodersen L, et al. A recurrent immunophenotype... Leukemia, 2016;30(10):2077-2080 3. Smith, JI, et al. Comprehensive Transcriptome Profiling of Cryptic CBFA2T3-GLIS2 Fusion-Positive AML... Clinical Cancer Research, vol. 26.3 (2020): 726-737

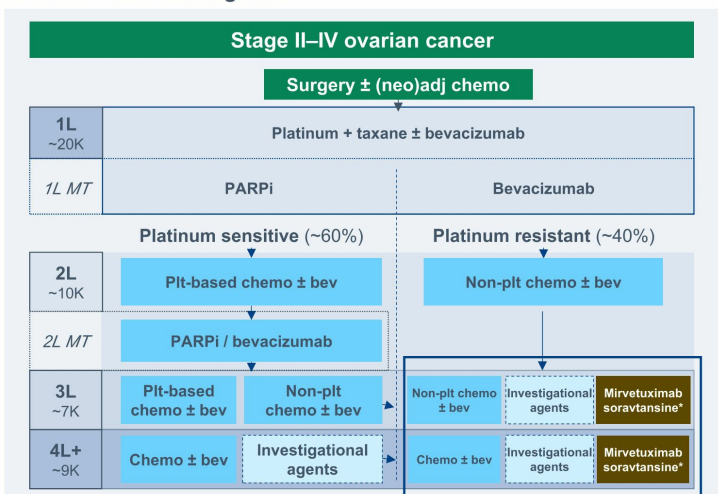
NSCLC source: 1. SEER data, 2022 (accessed Jan. 2023) 2. ASCO Cancer.net report, 2022 3. American Cancer Society Key Statistics for Lung Cancer, 2022

Platinum-sensitive ovarian cancer source: Sutro internal estimate, based on overall ovarian cancer incidence from SEER data, 2022 (accessed Jan. 2023)

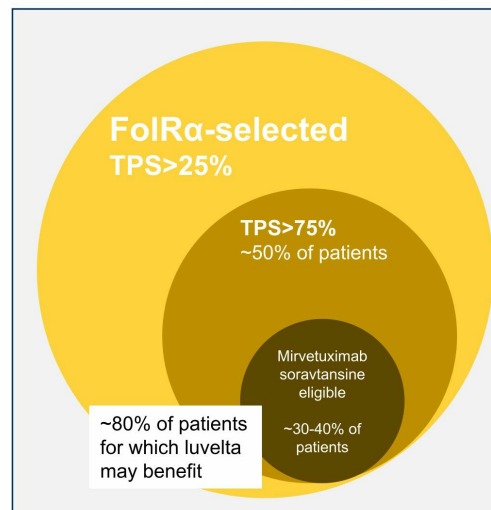
High Unmet Need Remains in Platinum-Resistant Ovarian Cancer

Majority of patients are FOLRα expressors and candidates for luvelta

Current Treatment Algorithm



Platinum Resistant Ovarian Cancer Patients



1L, first line; 2L, second line; 3L, third line; 4L, fourth line; adj, adjuvant; bev, bevacizumab; chemo, chemotherapy; MT, maintenance; PARPi, PARP inhibitor; PROC, platinum-resistant ovarian cancer; plt, platinum.

* ELAHERE (mirvetuximab soravtansine-gynx) received accelerated approval in Nov. 2022 for PROC with TPS≥75% and PS2+ or PS3+ staining

1. American Cancer Society Ovarian Cancer Report, 2022 2. American Cancer Society Key Statistics on Ovarian Cancer, 2022 3. DRG 2020 Report 4. WebMD, Ovarian Cancer Treatments, 2022 5. OCRA, Ovarian Cancer Treatments, 2022 6. Zhou, Z. et al. *Front Public Health*, 2021;9:619581, 7. Armstrong D. et al. *J Natl Compr Cancer Netw*, 2021;19:191–226 7. SEER data, 2022 (accessed Jan. 2023) 8. Internal Sutro analysis, June 2022.

Closing Remarks and Q&A