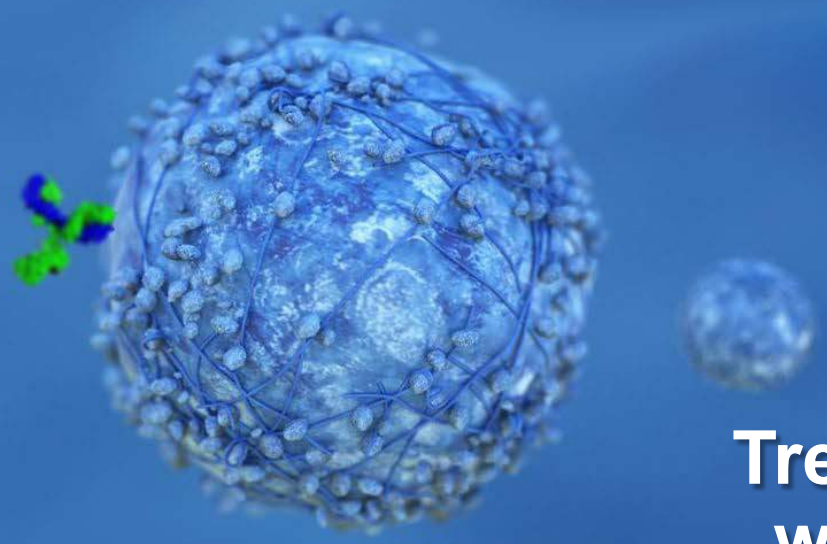


Treatment of Ovarian & Endometrial Cancer with the Novel Folate Receptor-α-targeting Antibody Drug Conjugate, STRO-002

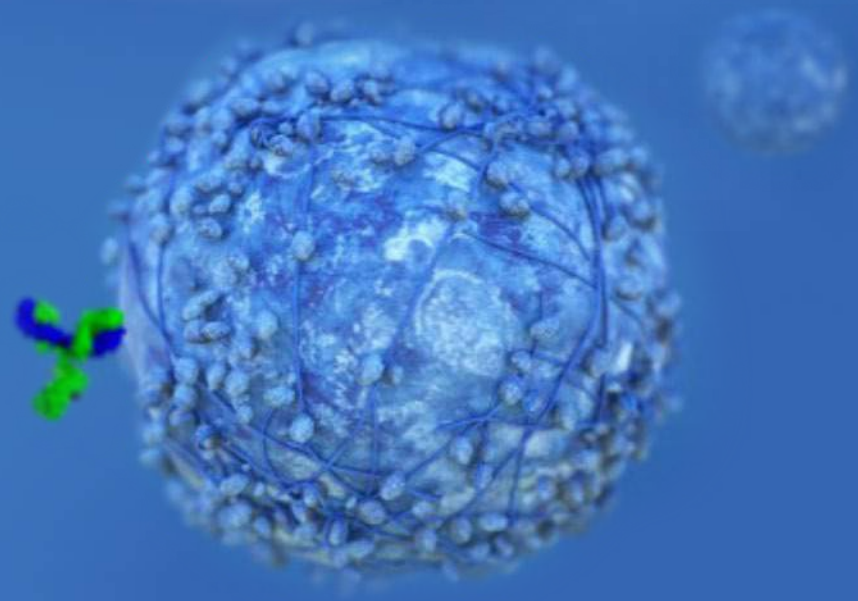
World ADC Conference

March 2021

Arturo Molina

Chief Medical Officer

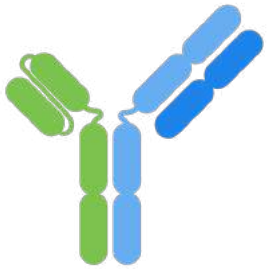
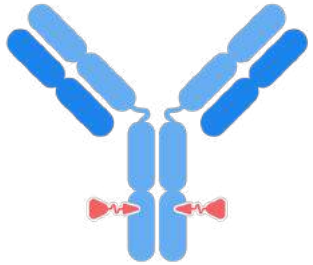
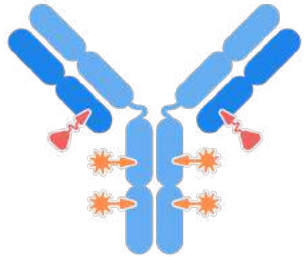
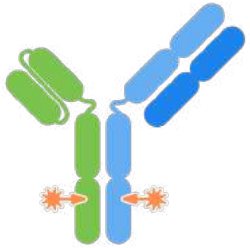
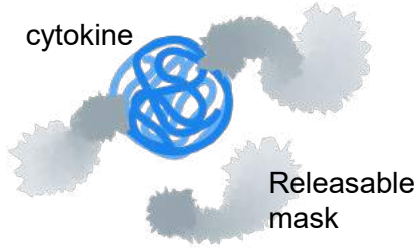
SUTRO BIOPHARMA



Sutro Technology and Pipeline

Sutro Technology Has Broad Oncology Applications

Novel and precise design to drive adaptive and protective immune responses

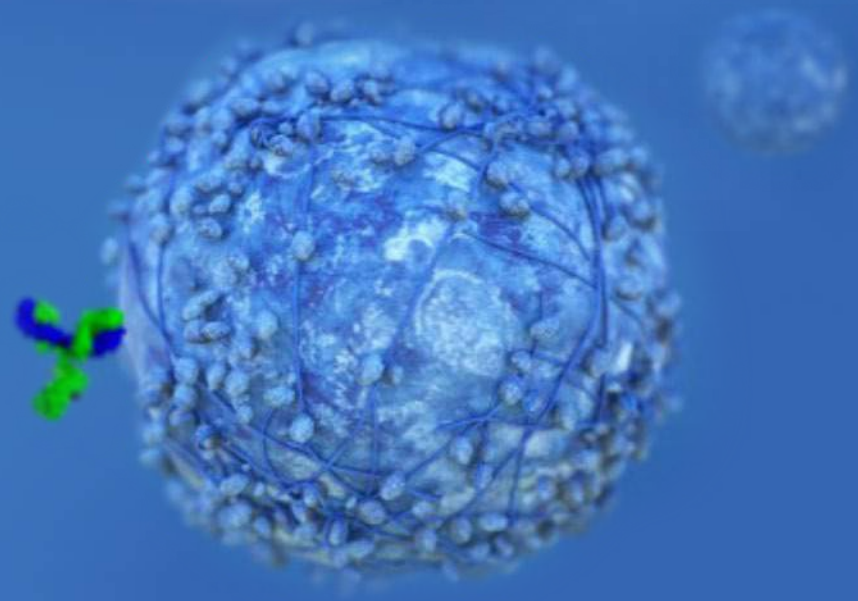
	Bispecific Antibody	Conjugated Antibody			Cytokine Derivative
Modality	*Immune Cell Engager*	*ADC or ISAC*	*iADC*	*Bispecific ADC*	*Prodrug Cytokine Derivative*
Target	Tumor or Stromal Antigen; Immune Cell Engager	Tumor Antigen	Tumor Antigen	Dual Tumor Antigens	Tumor Selective Mask
Structure					
Drug Properties	Optimized format and affinity Improved specificity for optimized therapeutic window	ISAC: Immune-stimulating ADC: targeting novel payloads	Site-specific dual drug conjugate with complementary modalities (TME modulator +/- immune modulator)	Enhanced tumor targeting of cytotoxic payloads	Prodrug cytokine targeting functional cytokine to tumor

Cell-Free Platform is a Proven IND Engine

Four product candidates in the clinic and other late-stage discovery programs in various modalities

Program	Discovery	Preclinical	Phase 1/1b	Phase 2/3	Commercial Rights
STRO-002 *FolRα-Targeting ADC*	**Ovarian and Endometrial Cancer**				SUTRO BIOPHARMA Worldwide Rights
STRO-001 *CD74-Targeting ADC*	**Lymphomas: DLBCL, Mantle Cell, Follicular** **Multiple Myeloma** (Orphan Drug Designation)				
Multiple Oncology Programs including iADCs	**Oncology**				
CC-99712 *BCMA-Targeting ADC*	**Multiple Myeloma** (Orphan Drug Designation)				Bristol Myers Squibb™
M1231 *MUC1-EGFR Bispecific ADC*	**NSCLC & Esophageal Cancer**				EMD SERONO (1)
Cytokine Derivatives	**Oncology & Autoimmune**				MERCK
	Oncology				
VAX-24 24-Valent Pneumococcal Conjugate Vaccine	**Invasive Pneumococcal Disease**				Vaxcyte (2)

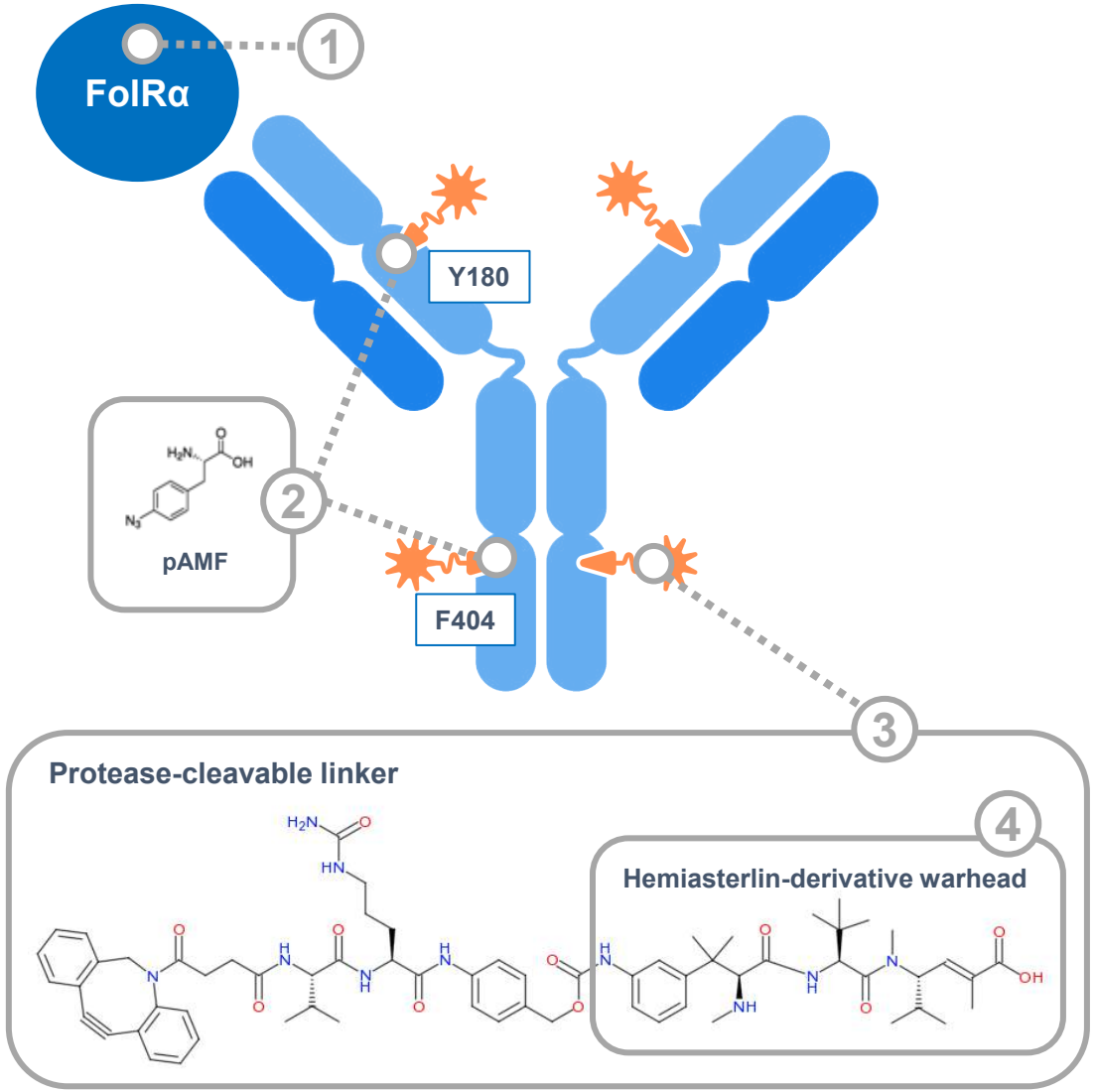
(1) EMD Serono is the biopharmaceutical business of Merck KGaA, Darmstadt Germany in the US
(2) Sutro owns 4% royalties on VAX-24



STRO-002 Background

Potential Best-in-Class ADC for Ovarian and Endometrial Cancers

FolRα targeting ADC with potentially dual mechanism of action



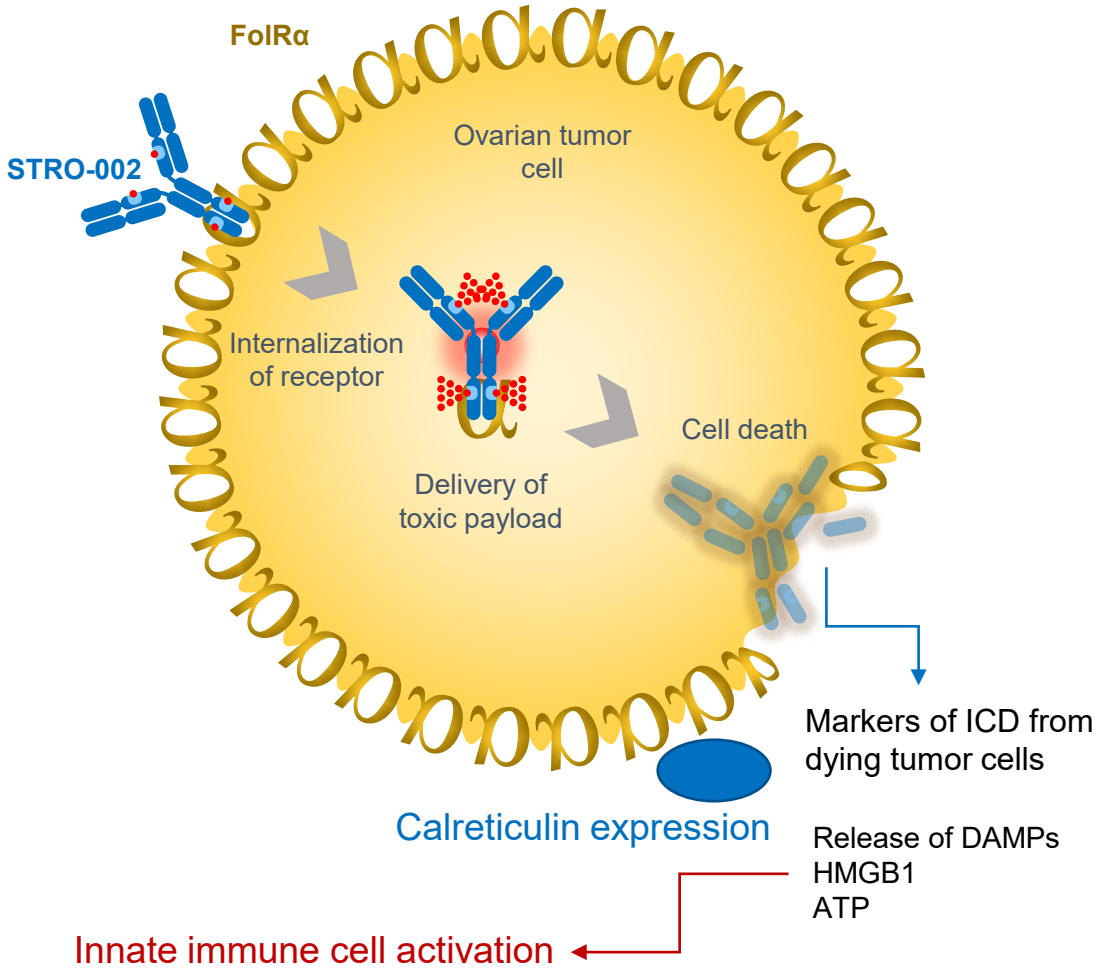
STRO-002 is a homogeneous **antibody drug conjugate (ADC)** with a **drug-antibody ratio (DAR) of 4**, targeting folate-receptor alpha (**FolRα**):

1. **FolRα** is overexpressed in certain cancers including **ovarian cancer** and **endometrial cancer**
2. Precisely positioned **non-natural amino acids**, p-azidomethyl-L-phenylalanine, at positions Y180 and F404 on the heavy chain
3. **Stable protease-cleavable linkers**, with rapid clearance of toxic catabolite after release and cell killing
4. Warhead is hemiasterlin-derivative(1) with potentially **dual mechanism** against the tumor – **tubulin-inhibitor cytotoxin, less sensitive to P-gp transport** and provides **immunogenic response upon cell death(2)**

(1) Sutro-proprietary tubulin-targeting 3-aminophenol hemiasterlin warhead, SC209
(2) Based on STRO-002 pre-clinical models showing immune stimulation at site of tumor upon cell death

STRO-002 Mechanism of Action

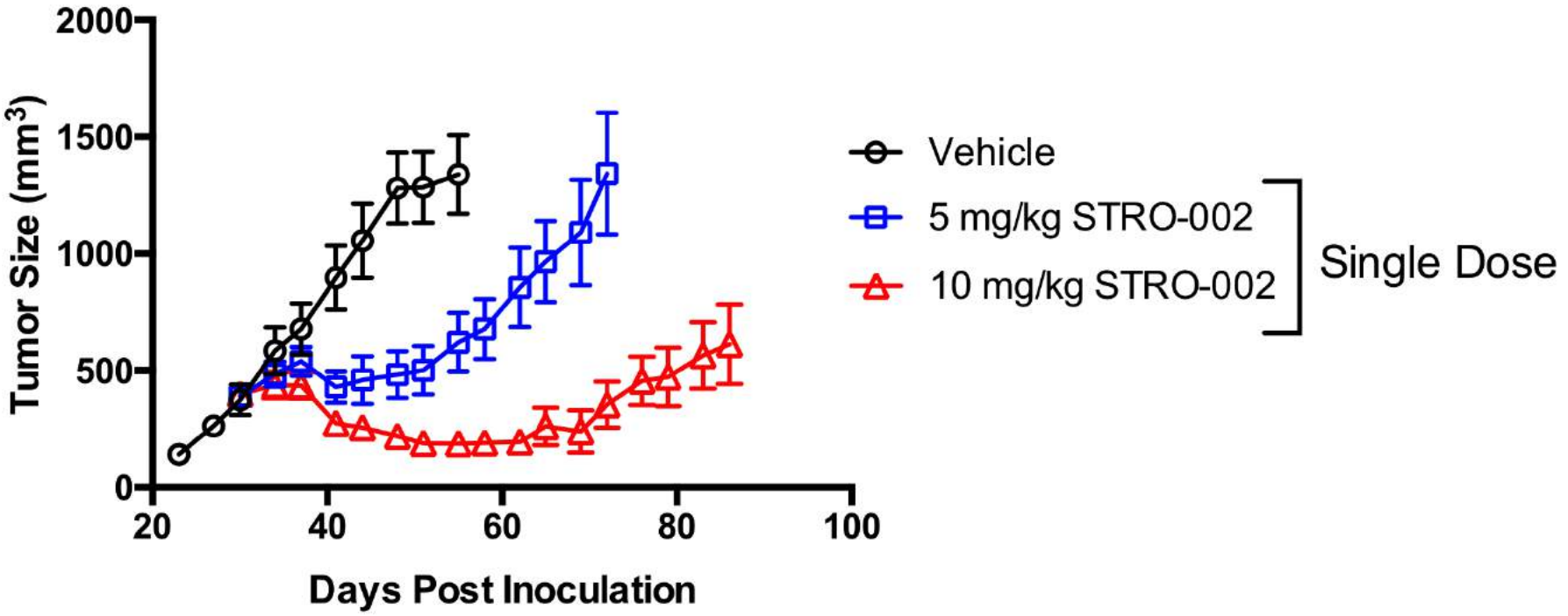
Tumor Cell Delivered Cytotoxicity and Stimulation of Innate Immune Cell Activation



STRO-002 in Ovarian Cancer

Potent preclinical anti-tumor activity

Tumor Growth in OVCAR3 Murine Ovarian Xenograft Model

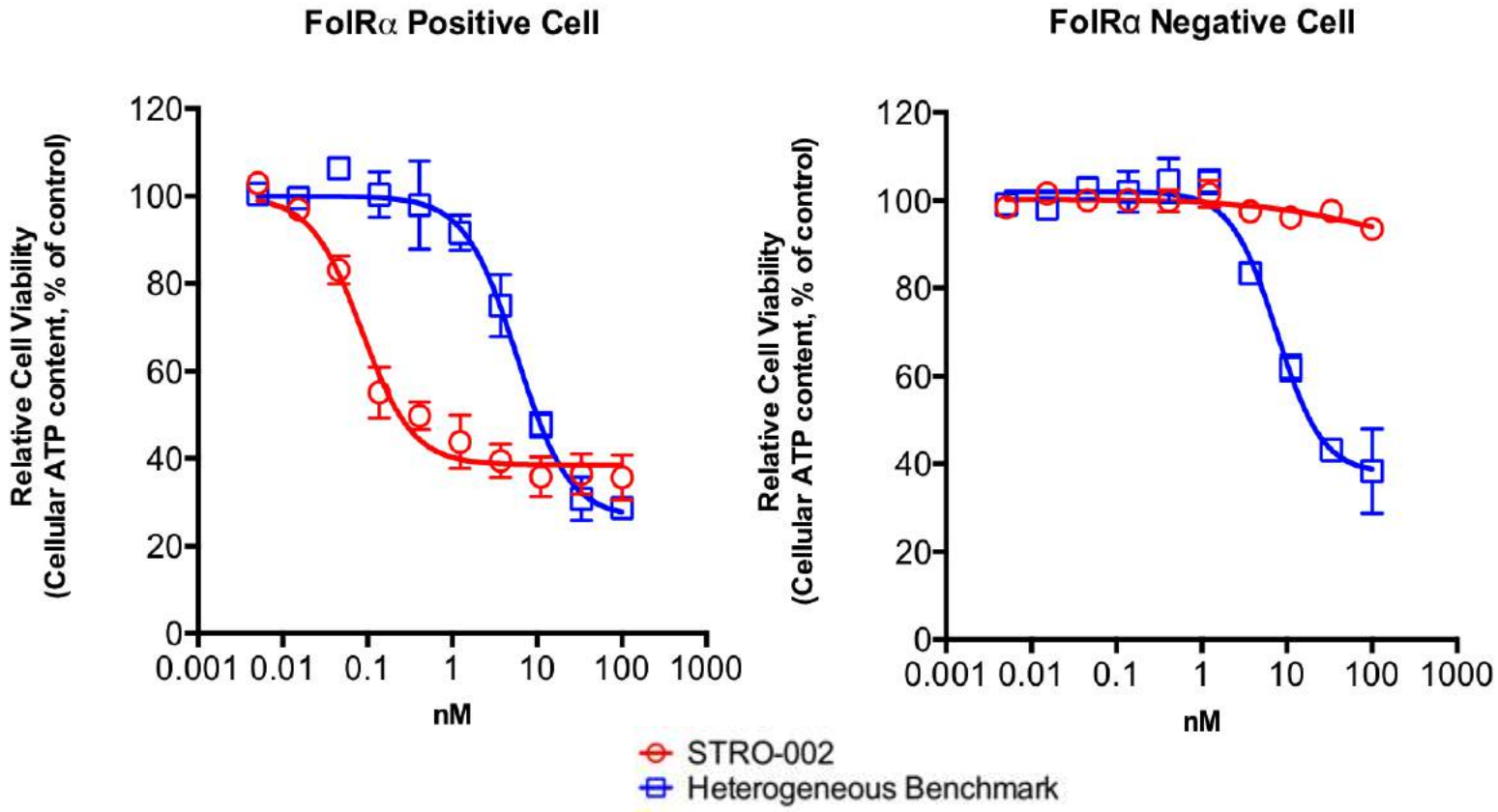


Single Dose of 10 mg/kg STRO-002 Resulted in Tumor Regression

Source: Sutro Biopharma report, Evaluation of STRO-002 Efficacy in the Treatment of Established and Large OVCAR-3 Human Ovarian Xenograft Tumors, TR-TPPD-0116-V1.0, dated December 20, 2017.

STRO-002 in Ovarian Cancer

Design features facilitate improved potency and specificity

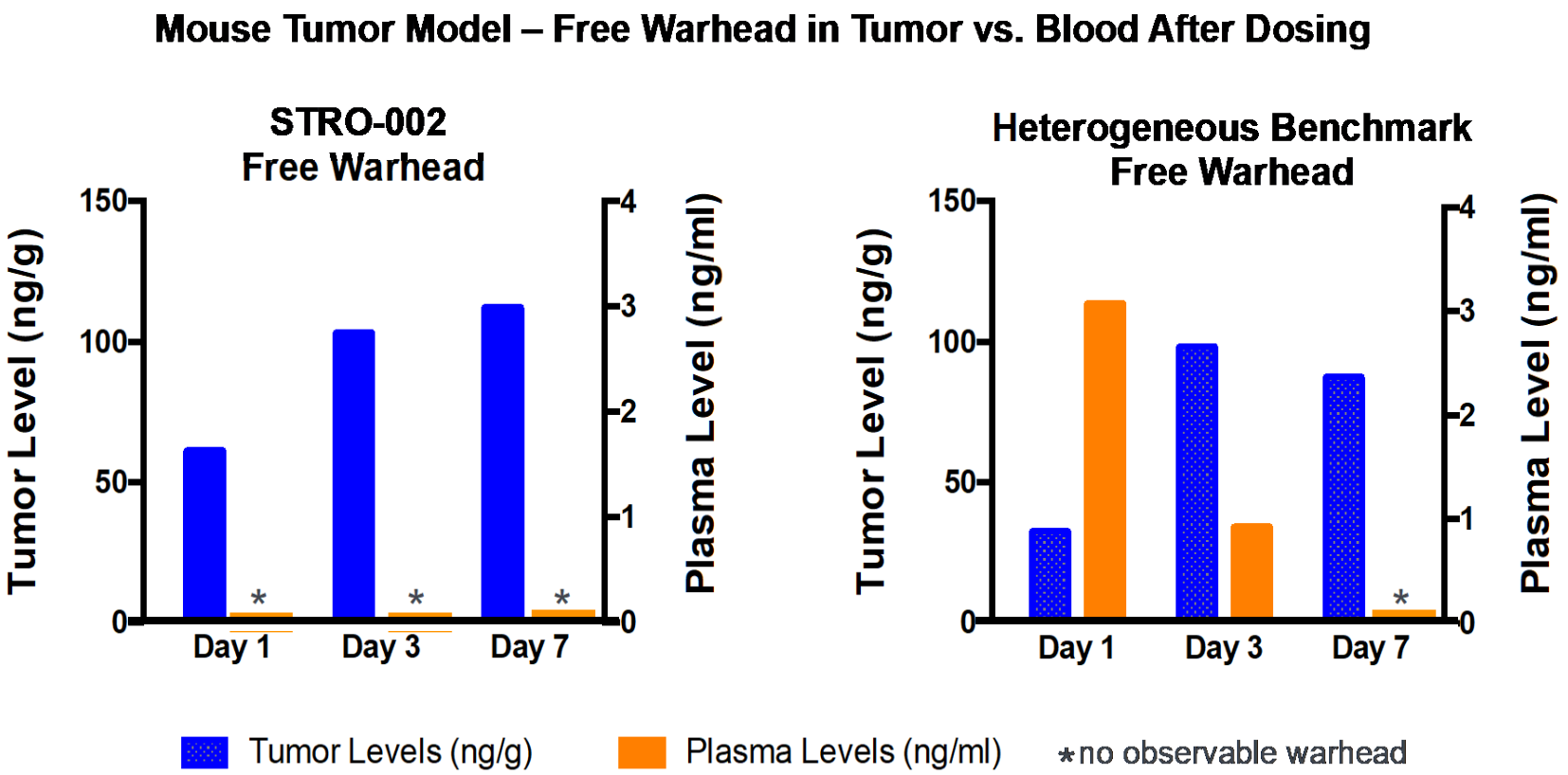


STRO-002 Demonstrates More Potent Cell Killing Compared to the Benchmark and Has Minimal Off-Target Activity

Source: Sutro Biopharma report, STRO-002 Cell Killing Compared to SP8435, TR-TPPD-0021-V1.0, dated May 18, 2018.

STRO-002: A Potentially Superior FolRα ADC

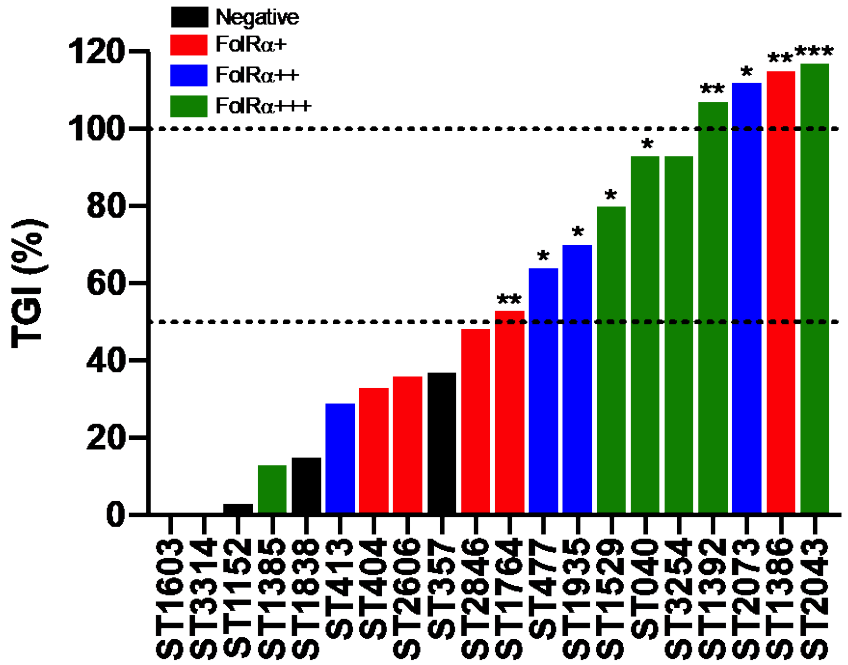
Improved stability can widen therapeutic index



No Evidence of STRO-002 Free Warhead Circulating in the Blood Post Dosing
No evidence of Free Warhead Accumulation in FolRα Negative Tumors

Source: Sutro Biopharma report, In Vivo Catabolite Profiling for SP8193 and SP8435 in Tumor and Plasma, TR-PHRM-0036-V1.1, dated January 8, 2018.

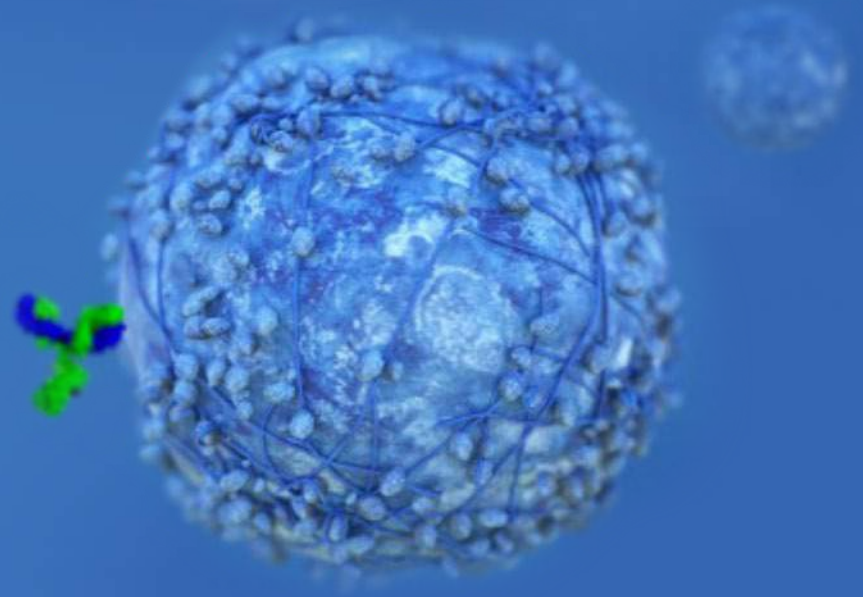
STRO-002 Shows Significant TGI Activity in Endometrial Cancer PDX Models



FolRα Expression	Number of Models with Signficant TGI	Percent Response
Negative	0/3	0%
FolRα + (Low)	2/6	33%
FolRα ++ (Medium)	3/5	60%
FolRα +++ (High)	4/6	67%
Total FolRα Positive	9/17	53%

Established PDX tumors (~100-200 mm^3) were treated weekly treatment with 10 mg/kg STRO-002

- STRO-002 was significantly efficacious in 53% of the FolRα positive models
- Significant TGI ranged from 53% to > 100 % (indicating regression below the tumor size at the start of treatment)
- Correlation observed between STRO-002 response and FolRα expression levels. Though high FolRα models showed highest response rates, some models with low and medium FolRα also exhibited good activity.



STRO-002 GM1
Ovarian Dose Escalation Data

STRO-002 GM1 Phase 1 Two-Part Design

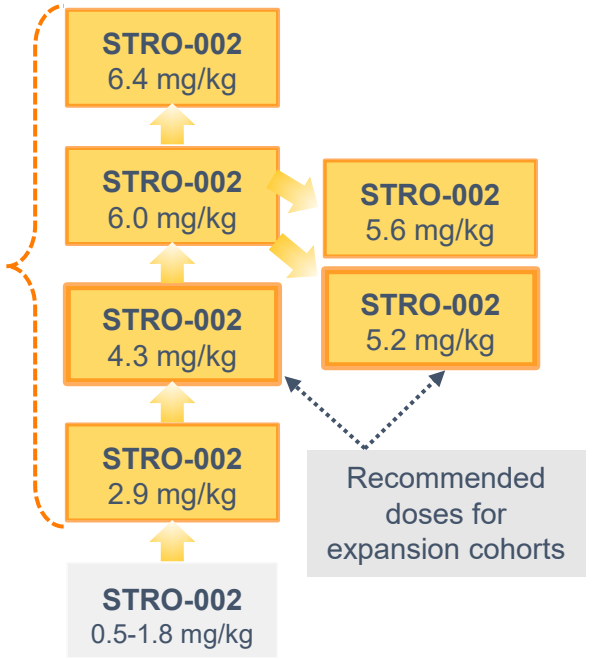
Dose-escalation has been completed and data was presented December 2020

Part 1: *Dose-Escalation Cohort in Ovarian*

All-Comers Ovarian Cancer
N=39

34 patients treated at clinically active dose (≥ 2.9 mg/kg Q3W)

Of which, **31 patients** were evaluable for RECIST



Study Update:

- Enrollment completed August 2020
- Company provided updated data on December 3, 2020, as of October 30, 2020 cutoff

Baseline Characteristic	All Patients N=39
Median age	61 years (range: 48–79)
Median time since diagnosis	**3.9 years** (range: 0.6–17.0)
Median number of prior lines of therapy	**6 lines** (range: 2–11)
Previous therapies, n	
Platinum	**39 (100%)**
≥ 3 prior platinum regimens	**18 (46%)**
Taxanes	38 (97%)
Bevacizumab	32 (82%)
PARP inhibitors	**23 (59%)**
Checkpoint inhibitors	**8 (21%)**
Experimental therapy	14 (36%)

Note: Data as of October 30, 2020 and presented at Company Event on December 3, 2020

STRO-002 Was Generally Well Tolerated

86% of TEAEs remain Grade 1-2 and no observed ocular toxicity signal

Dose Levels in Dose-Escalation

Dose Levels (Q3W)	All Patients (N=39)
0.5 mg/kg, 1.0 mg/kg, and 1.8 mg/kg	5 (13%)
2.9 mg/kg	**3 (8%)**
4.3 mg/kg	**5 (13%)**
5.2 mg/kg	**12 (31%)**
5.6 mg/kg	**3 (8%)**
6.0 mg/kg (1)	**10 (26%)**
6.4 mg/kg (1)	**1 (3%)**

Common TEAEs > 25% By Grade (2)

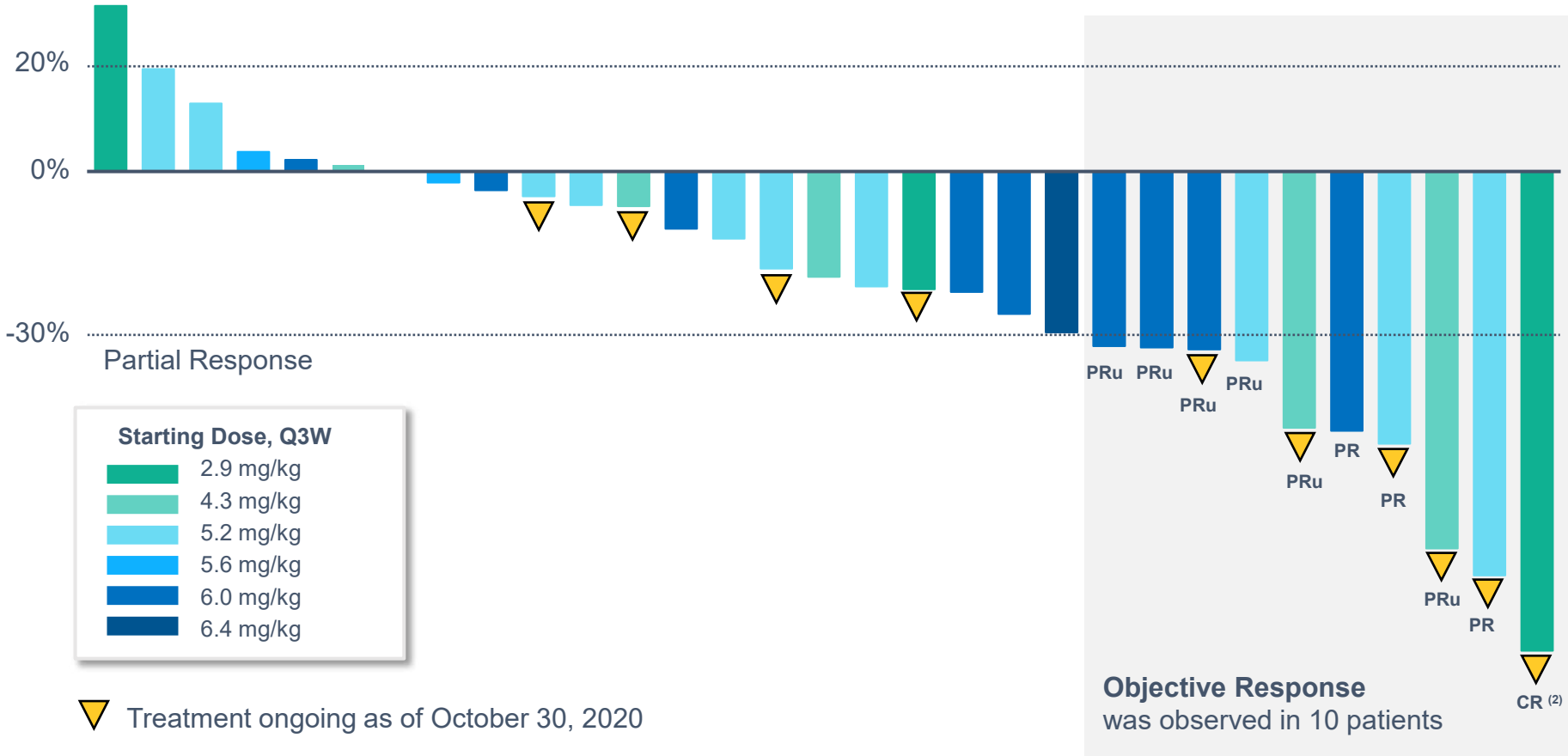
All Safety Evaluable Patients	Grade 1 N (%)	Grade 2 N (%)	Grade 3 N (%)	Grade 4 N (%)	Overall (N=39) N (%)
Fatigue	8 (21)	17 (44)	4 (10)	0	29 (74)
Nausea	15 (39)	10 (26)	0	0	25 (64)
Constipation	12 (31)	12 (31)	0	0	24 (62)
Neutropenia	0	1 (3)	9 (23)	13 (33)	23 (59)
Arthralgia	8 (21)	7 (18)	6 (15)	0	21 (54)
Decreased appetite	10 (26)	10 (26)	0	0	20 (51)
Neuropathy	3 (8)	12 (31)	3 (8)	0	18 (46)
Abdominal pain	7 (18)	5 (13)	3 (8)	0	15 (39)
AST increased	10 (26)	2 (5)	1 (3)	0	13 (33)
Dizziness	10 (26)	3 (8)	0	0	13 (33)
Vomiting	8 (21)	5 (13)	0	0	13 (33)
Diarrhea	8 (21)	3 (8)	1 (3)	0	12 (31)
Headache	7 (18)	3 (8)	0	0	10 (26)
Insomnia	6 (15)	4 (10)	0	0	10 (26)
Pyrexia	8 (21)	2 (5)	0	0	10 (26)

(1) MTD was not reached; DLTs occurred in 2 patients: Grade 2 neuropathy/Grade 3 arthralgia at 6.0 mg/kg and Grade 3 bone pain at 6.4 mg/kg
(2) Not included in table are two Grade 5 events, both previously reported and unrelated to study drug by investigator assessment: death not otherwise specified and acute GI bleed
Note: Data as of October 30, 2020 and presented at Company Event on December 3, 2020

Tumor Reduction Observed in Majority of Patients

10 patients met criteria for response

Maximum Change (1) in Tumor Target Lesions



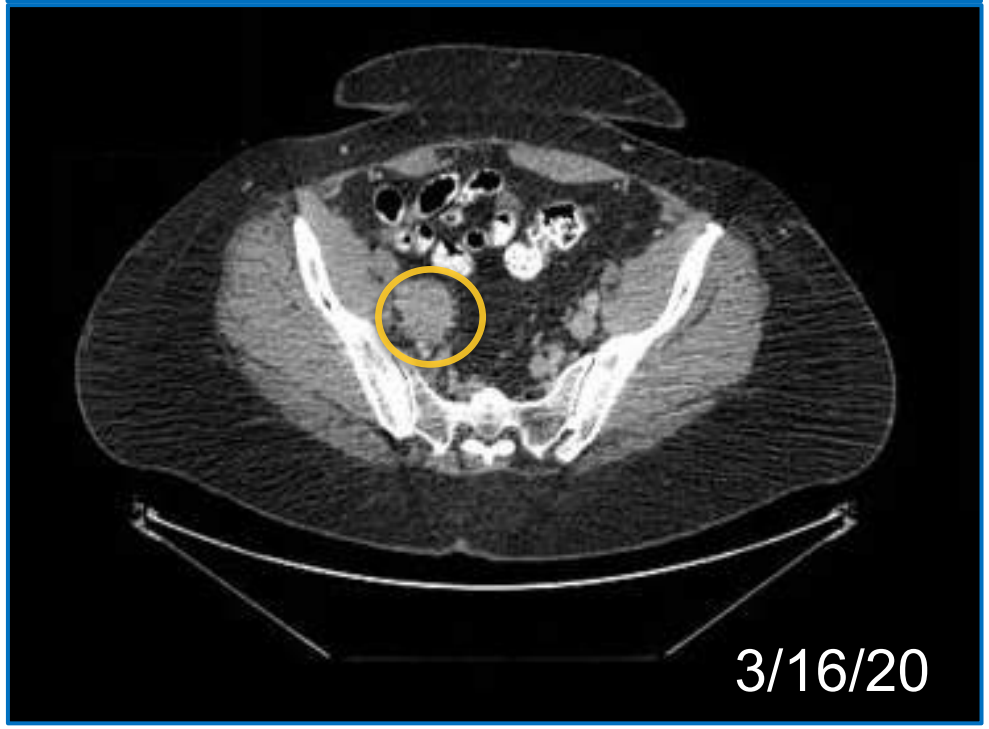
Objective Response per RECIST 1.1	RECIST-Evaluable Population (N=31)
Responders	**10**
CR (2)	**1**
PR	**9**
Confirmed	*3*
Unconfirmed	*6*
SD	**18**
PD	**3**

(1) Maximum % change from baseline in sum of longest diameter in evaluable patients treated with STRO-002 at ≥ 2.9 mg/kg Q3W, N=31
(2) CR in patient treated at 2.9 mg/kg with resolution of peritoneal disease
Note: Data as of October 30, 2020 and presented at Company Event on December 3, 2020

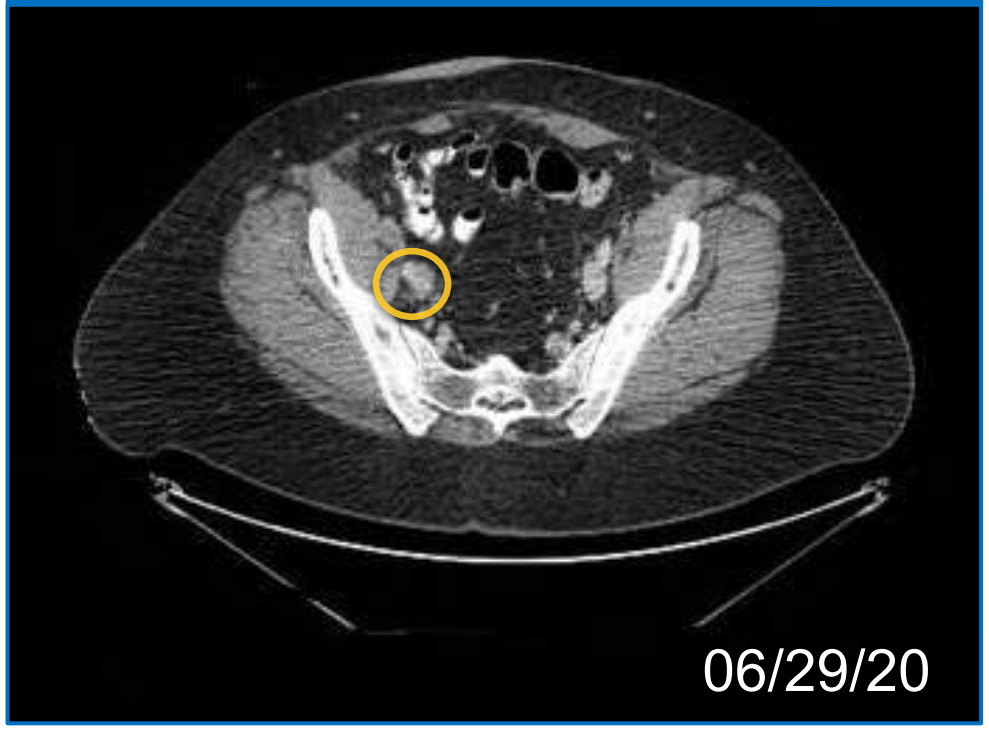
Partial Response in Patient with Platinum-resistant OC

PR with 74% tumor reduction

Baseline



Confirmed PR after 4 cycles

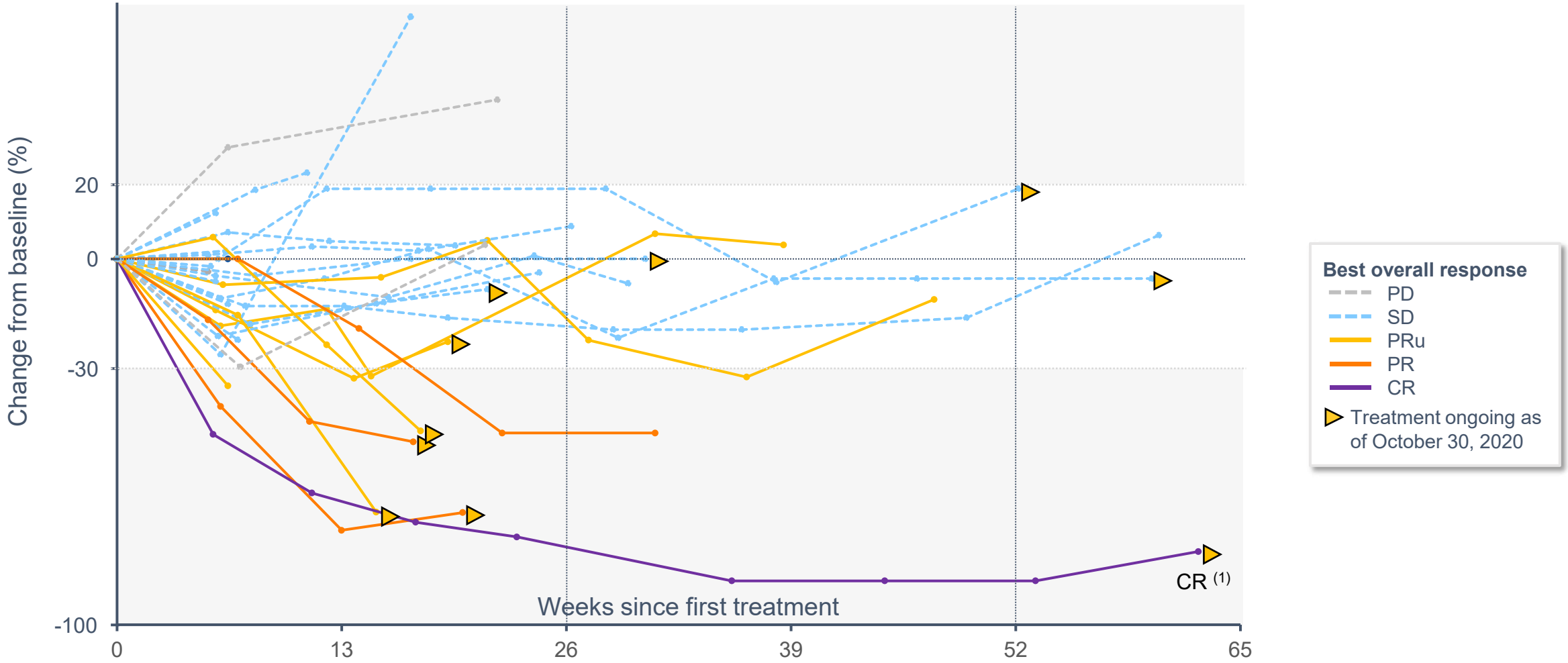


57-year-old woman with platinum resistant ovarian cancer progressing after 4 prior regimens received STRO-002 at 5.2 mg/kg Q3W and remains on study treatment

Tumor Regression and Control Over Time

Deepening of responses over time and others with disease control remaining on study

Change in Sum of Diameters for Target Lesions Over Time (N=31)



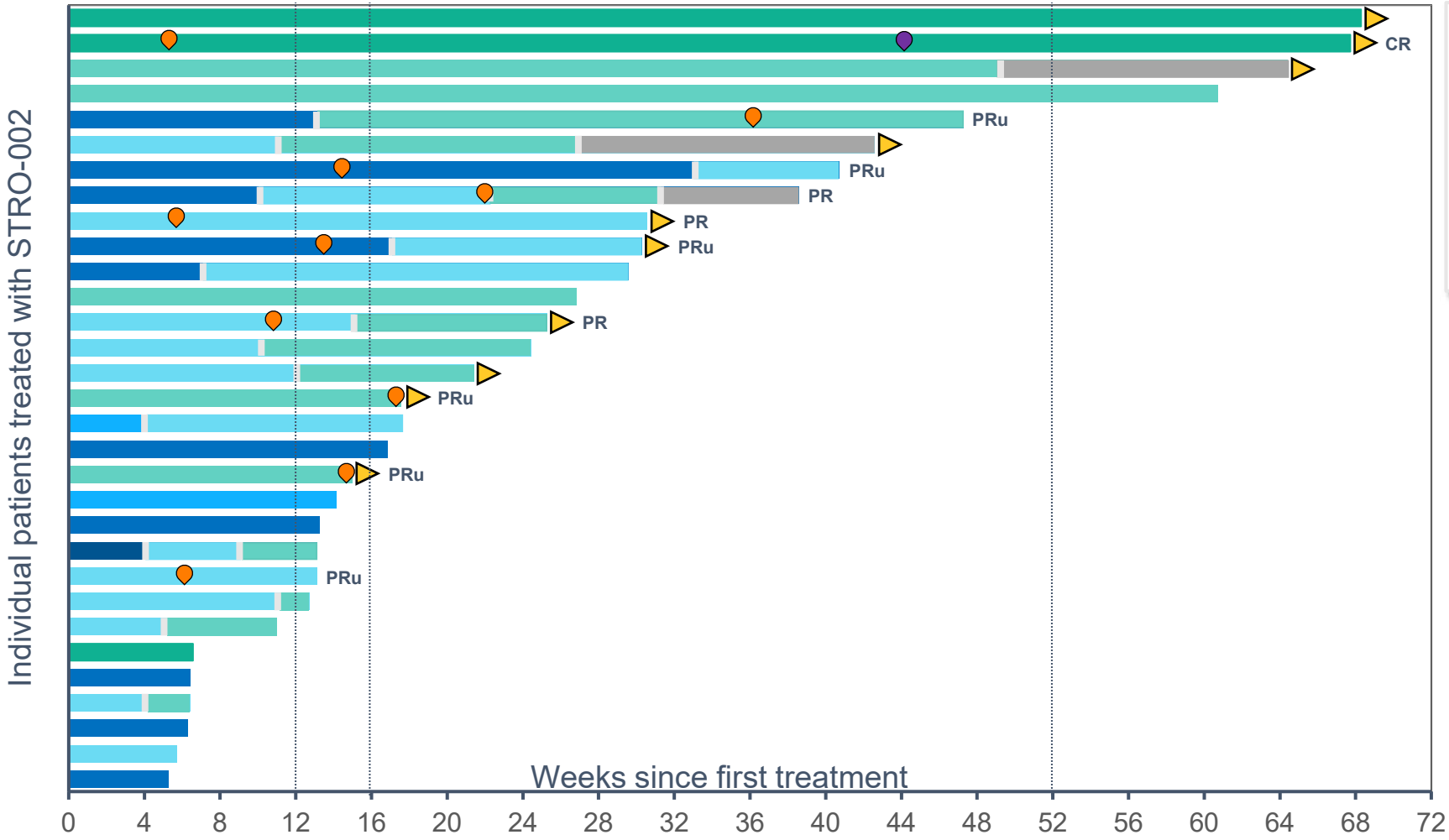
(1) CR in patient treated at 2.9 mg/kg with resolution of peritoneal disease

Note: Data as of October 30, 2020 and presented at Company Event on December 3, 2020

Clinical Benefit Seen in Heavily Pre-Treated Patient Population

Disease control rate of 74% at 12 weeks in RECIST-evaluable population

Treatment Duration (1) and Response, Based on Evaluable Patients (N=31)



Dose Level
- 2.9 mg/kg
- 3.5 mg/kg
- 4.3 mg/kg
- 5.2 mg/kg
- 5.6 mg/kg
- 6.0 mg/kg
- 6.4 mg/kg

- PR
- CR
- Treatment ongoing as of Oct 30, 2020
- Dose adjustment

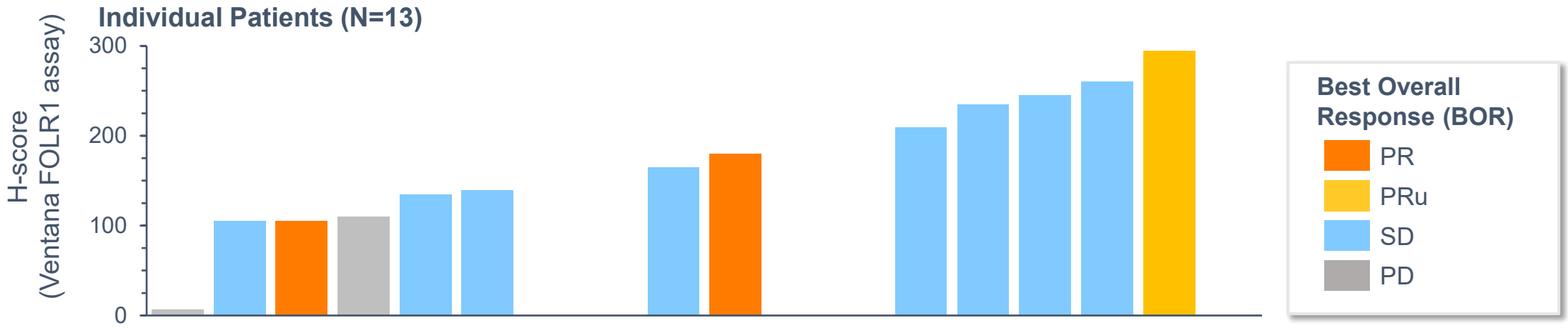
Disease Control Rate	RECIST-Evaluable Population
≥ 52 weeks	**4 (13%)**
≥ 16 weeks	**18 (58%)**
≥ 12 weeks	23 (74%)

Most patients on treatment **beyond 12 weeks** were treated at the **2.9-5.2 mg/kg dose levels**

(1) Duration calculated as date of PD or time from first dose to last dose given (including 4 patients deriving clinical benefit post progression per investigator assessment)
Note: Data as of October 30, 2020 and presented at Company Event on December 3, 2020

FolRα Expression by Immunohistochemistry(1)

In emerging data, responses and anti-tumor activity observed across various FolRα expression levels



FOLR1 PS2+ Score:	Weak/Absent Expression	Moderate Expression	High Expression
PR	1	1	0
PRu	0	0	1
SD	3	1	4
PD	2	0	0

(1) Assessed by Ventana FOLR1 expression assay based on available archival tissue from dose-escalation patients
Note: Data as of October 30, 2020 and presented at Company Event on December 3, 2020

Key Findings in Dose-Escalation Study

STRO-002 is a potentially important option for patients with limited treatment alternatives

STRO-002 provided clinical benefit in an all-comers, late line patient population

Patients experienced a median of 6 prior lines of therapy, including SOC, bevacizumab, PARPi, CPI, and clinical trials

86% of the AEs were Grade 1-2 and corticosteroid eyedrops were not required

Neutropenia generally reversed within a week, without G-CSF. Peripheral neuropathy/arthralgia managed with dose reduction/delay without evidence of compromised efficacy

Wide therapeutic index allows for for long-term dosing

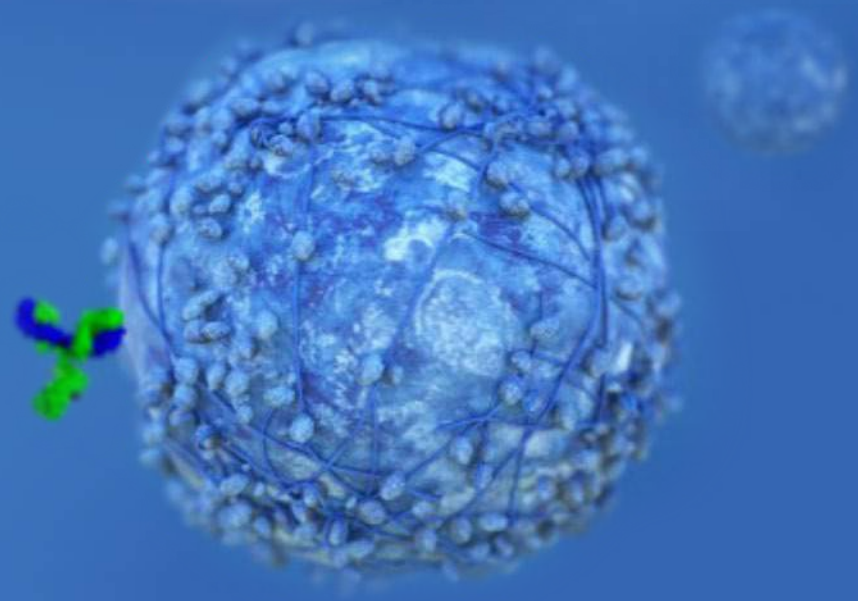
Encouraging product profile with STRO-002 generally well tolerated and MTD was not reached. Antitumor activity and responses were observed in multiple dose levels

Improved outcomes in responses and DCR as data matures

74% of the patients had disease control ≥12 weeks, which is clinically relevant in this population

Antitumor activity and disease control across various FolRα expression levels

Suggests potential for STRO-002 to provide clinical benefit across a broad patient population.



STRO-002 GM1 Dose Expansion

Path Forward for STRO-002 Clinical Development

Next steps for moving towards registration-directed study

Determine optimal efficacious dose that is well-tolerated and maintains **dose intensity**

Study will begin with **All Comers** and ongoing expression analysis will **inform subsequent enrichment strategy**

Characterize efficacy and safety profile in **less heavily pre-treated population** to inform **registration-directed study**

Part 2: *Dose-Expansion Cohorts (Ovarian & Endometrial)*

All-Comers Ovarian Cancer

- Tissue required prior to enrollment
- Front line platinum-refractory excluded
- 1-3 prior regimens for platinum-resistant
- 2-3 prior regimens for platinum-sensitive
- Baseline peripheral neuropathy grade ≥ 2 excluded

N≈20 — **STRO-002** 4.3 mg/kg

N≈20 — **STRO-002** 5.2 mg/kg

FolRα-Selected Endometrial Cancer

- Relapsed/refractory disease
- No standard of care treatment

N≈15-40 — **STRO-002** 4.3-5.2 mg/kg

Key Endpoints:

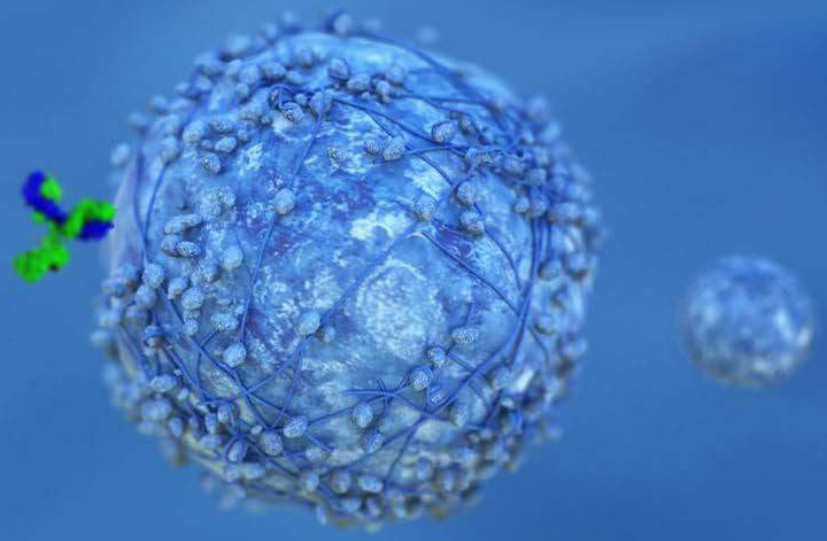
Objective Response Rate, Safety, PK Profile, Duration of Response, Progression Free Survival, Overall Survival, CA-125 Responses

First patient for ovarian cohort dosed **January 2021**

Plan to target **≈35 sites in US & Europe**

Anticipated preliminary data in ovarian cancer **2H 2021**

Anticipated **EOP1/2** FDA meeting in 2H 2021



Thank You

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