

# HLX43 First-in-human Study Data Readout

**Presenter** Dr. Qingyu Wang, General Manager of Clinical Development & China CMO

**Date** June 2, 2025

**Sponsor** Shanghai Henlius Biotech, Inc

# HLX43-FIH101 Study Design

cutoff date 2025/03/28

## Key inclusion criteria

- Age  $\geq 18$  years.
- ECOG PS 0 or 1.
- For **phase 1a**, histologically or cytologically confirmed advanced/metastatic malignant **solid tumors**.
- For **phase 1b**, histologically or cytologically confirmed advanced/metastatic **NSCLC** refractory or not amenable to standard therapy.
- Measurable disease according to RECIST v1.1.

Screening



## Phase 1a: solid tumor

4.0 mg/kg Q3W  
N=3-6

3.0 mg/kg Q3W  
N=3-6

2.5 mg/kg Q3W  
N=3-6

2.0 mg/kg Q3W  
N=3-6

1.0 mg/kg Q3W  
N=3-6

0.5 mg/kg Q3W  
N=3-6

CN only, 7 sites

## Phase 1b: NSCLC

3.0 mg/kg Q3W  
NSCLC, N=21

2.5 mg/kg Q3W  
NSCLC, N=22

2.0 mg/kg Q3W  
NSCLC, N=21

CN only, 14 sites



**Leading Principle Investigator:**

**Dr. Jie Wang**

Director of Medical Oncology Department, Cancer Hospital Chinese Academy of Medical Sciences  
Tenured Professor at Peking Union Medical College  
President of the Shanxi Cancer Hospital

**Leading Site: Cancer Hospital  
Chinese Academy of Medical Sciences**

CN, China; ECOG PS, Eastern Cooperative Oncology Group performance status; NSCLC, non-small cell lung cancer; Q3W, every 3 weeks; RECIST, Response Evaluation Criteria in Solid Tumors.

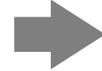
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2.5 mg/kg Q3W  
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2.0 mg/kg Q3W  
N=3-6

1.0 mg/kg Q3W  
N=3-6

0.5 mg/kg Q3W  
N=3-6

CN only, 7 sites



## Phase 1b: NSCLC

3.0 mg/kg Q3W  
NSCLC, N=21

2.5 mg/kg Q3W  
NSCLC, N=22

2.0 mg/kg Q3W  
NSCLC, N=21

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# HLX43 Ph 1a Dose Escalation – Patient Demographics and Baseline Characteristics

cutoff date 2025/03/28

Median follow-up duration: 9.7 months

n (%)	Phase 1a (n = 21)
Median age (range), years	52 (34–71)
ECOG PS	
0	11 (52.4)
1	10 (47.6)
Tumor type	
nsqNSCLC	8 (38.1)
TSCC	4 (19.0)
sqNSCLC	3 (14.3)
SCLC	1 (4.8)
HNSCC	1 (4.8)
NPC	1 (4.8)
UC	1 (4.8)
CC	1 (4.8)
NSCLC	1 (4.8)

n (%)	Phase 1a (n = 21)
Male	13 (61.9)
Prior anti-cancer therapy	
Chemotherapy+immunotherapy	16 (76.2)
Chemotherapy	11 (52.4)
Target therapy	10 (47.6)
Immunotherapy	6 (28.6)
Prior lines of therapy	
1	6 (28.6)
2	8 (38.1)
3	3 (14.3)
≥ 4	4 (19.0)
Median (range)	2.0 (1–6)

CC, cervical carcinoma; ECOG PS, Eastern Cooperative Oncology Group performance status; HNSCC, head and neck squamous carcinoma; NPC, nasopharyngeal cancer; NSCLC, non-small cell lung cancer; nsqNSCLC, nonsquamous NSCLC; SCLC, small cell lung cancer; sqNSCLC, squamous NSCLC; TSCC, thymic squamous cell carcinoma; UC, uterine carcinosarcoma.

# HLX43 Ph 1a Dose Escalation Efficacy Data

cutoff date 2025/03/28

Median follow-up duration: 9.7 months

Tumor response per RECIST v1.1 <sup>a</sup>	Phase 1a (n = 19)
CR, n (%)	0
PR, n (%)	7 (36.8)
SD, n (%)	7 (36.8)
PD, n (%)	4 (21.1)
NE, n (%)	1 (5.3)
ORR, % (95% CI)	36.8 (16.3–61.6)
DCR, % (95% CI)	73.7 (48.8–90.9)
mDOR, months (95% CI)	7.2 (1.4–NE)
mPFS, months (95% CI)	4.2 (2.7–8.4)
mOS, months (95% CI)	8.9 (6.0–NE)

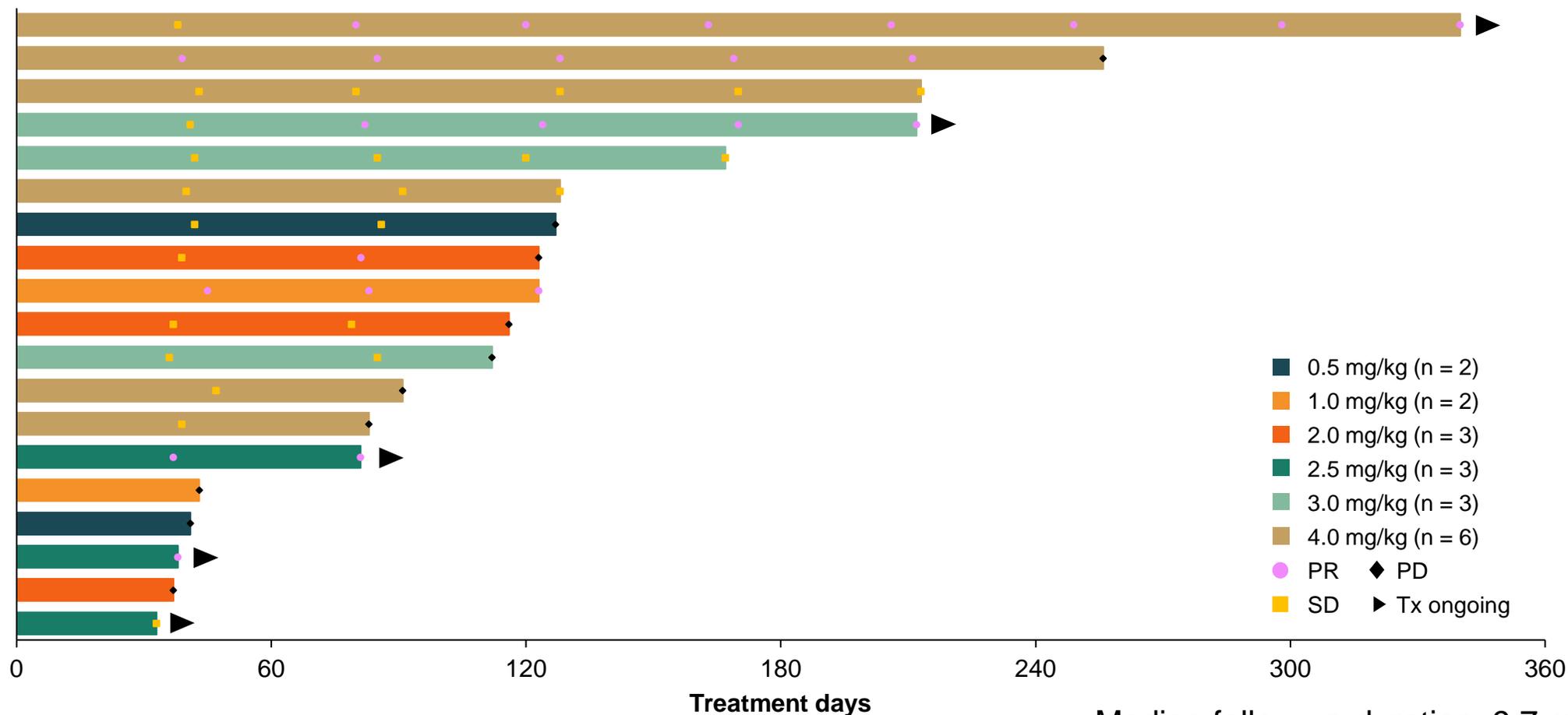
<sup>a</sup> Unconfirmed tumor response assessed by investigator in the 19 efficacy-evaluable patients; 2 patients did not have post-baseline tumor assessment.

CI, confidence interval; CR, complete response; DCR, disease control rate; mDOR, median duration of response; mPFS, median progression-free survival; mOS, median overall survival; NE, not evaluable; ORR, objective response rate; PD, progressive disease; PR, partial response; RECIST, Response Evaluation Criteria in Solid Tumors; SD, stable disease.

# HLX43 Ph 1a Dose Escalation Efficacy Data

cutoff date 2025/03/28

## Swimmer plot of time to response and duration of study treatment<sup>a</sup>



Median follow-up duration: 9.7 months

<sup>a</sup> In the 19 efficacy-evaluable patients; 2 patients did not have post-baseline tumor assessment.

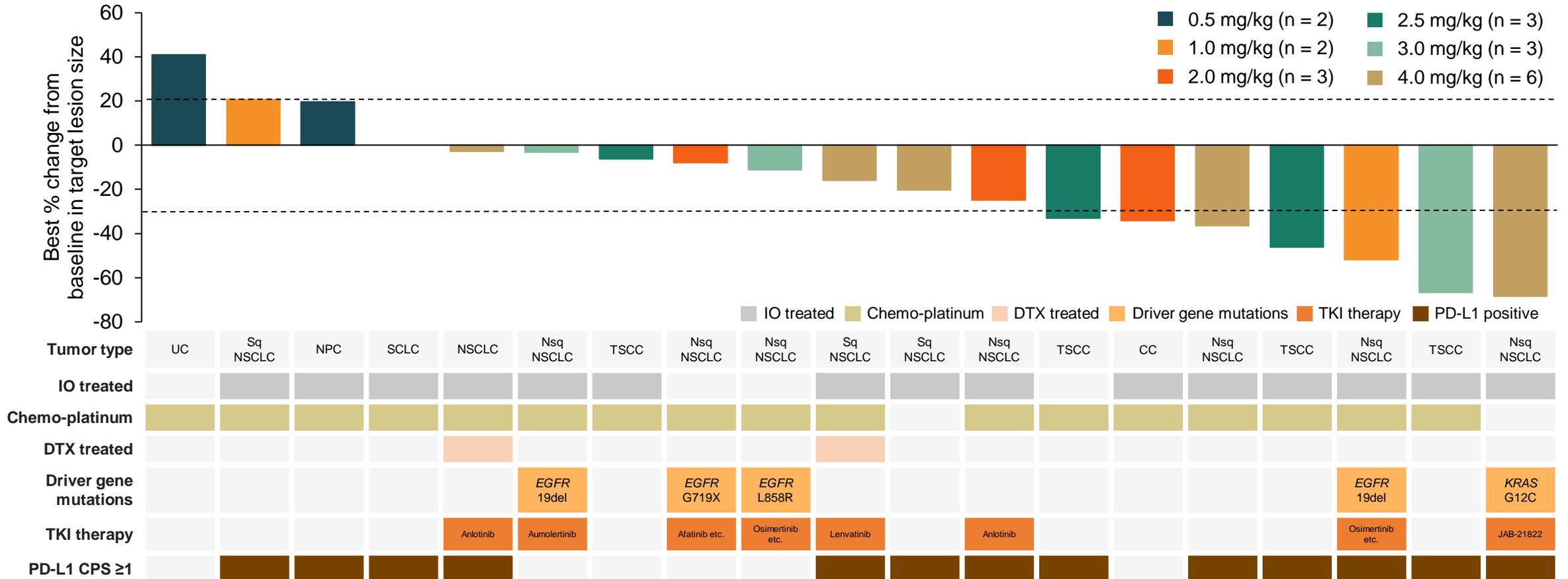
PD, progressive disease; PR, partial response; SD, stable disease; Tx, treatment.

# HLX43 Ph 1a Dose Escalation Efficacy Data

cutoff date 2025/03/28

## Best percentage change from baseline in target lesion size<sup>a</sup>

Median follow-up duration: 9.7 months

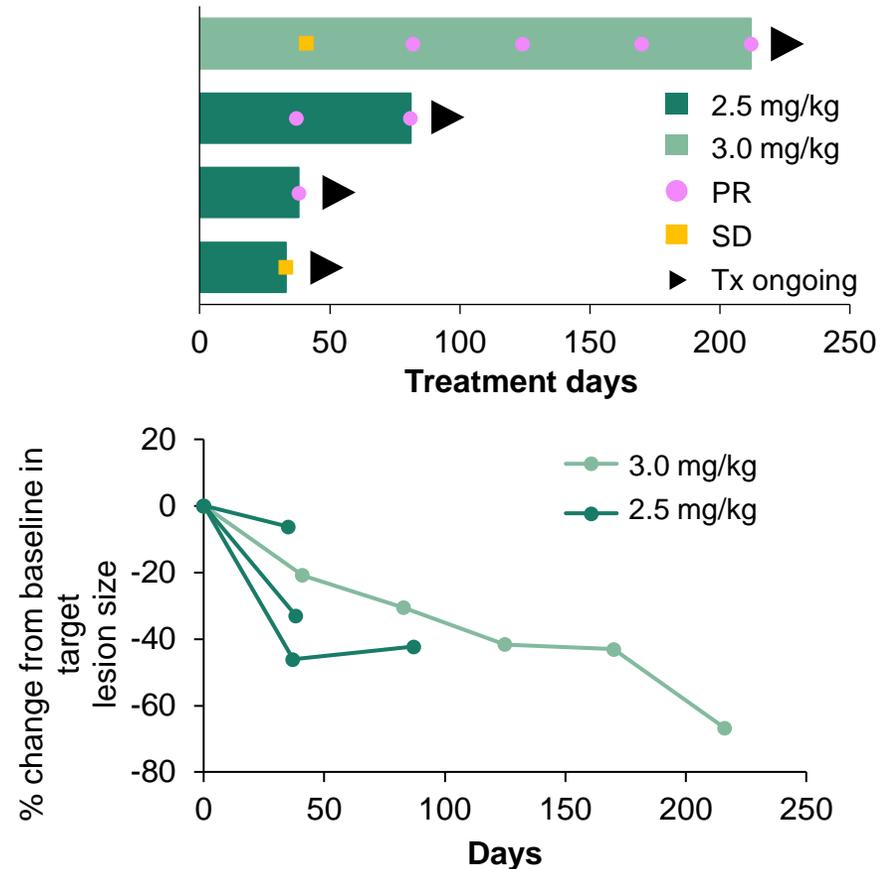
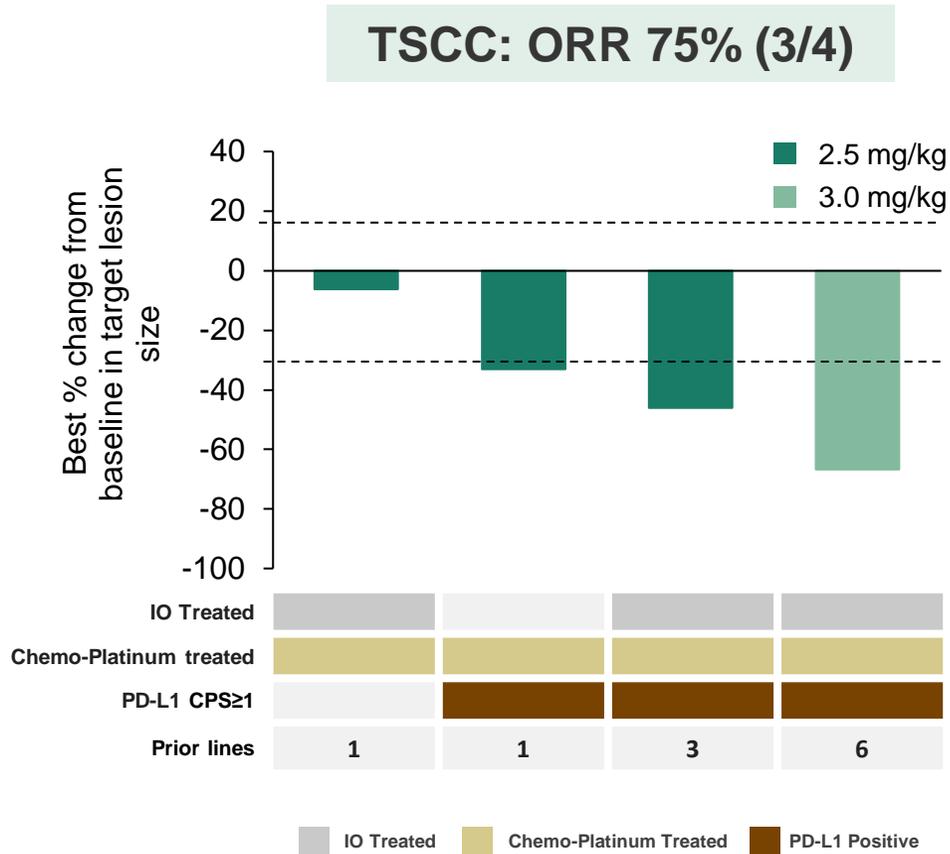


<sup>a</sup> In the 19 efficacy-evaluable patients; 2 patients did not have post-baseline tumor assessment.

CC, cervical carcinoma; chemo, chemotherapy; CPS, combined positive score; DTX, docetaxel; EGFR, epidermal growth factor receptor; IO, immunotherapy; KRAS, Kirsten rat sarcoma viral oncogene homolog; NPC, nasopharyngeal cancer; NSCLC, non-small cell lung cancer; nsqNSCLC, nonsquamous NSCLC; PD-L1, programmed death-ligand 1; SCLC, small cell lung cancer; sqNSCLC, squamous NSCLC; TSCC, thymic squamous cell carcinoma; UC, uterine carcinosarcoma.

# HLX43 Ph 1a Efficacy Data in TSCC

cutoff date 2025/03/28



<sup>a</sup> Unconfirmed tumor response assessed by investigator in the 19 efficacy-evaluable patients; 2 patients did not have post-baseline tumor assessment.

CPS, combined positive score; IO, immunotherapy; ORR, objective response rate; PD-L1, programmed death-ligand 1; TSCC, thymic squamous cell carcinoma.

# HLX43 Ph 1a Dose Escalation Safety Data

cutoff date 2025/03/28

Median follow-up duration: 9.7 months

Summary of adverse events, n (%)	Phase 1a (n = 21)
Any TEAE*	21 (100)
≥ Grade 3	10 (47.6)
≥ Grade 3 (≥ 10%)	
Neutrophil count decreased	5 (23.8)
White blood cell count decreased	5 (23.8)
Anemia	3 (14.3)
Pneumonia	3 (14.3)
Serious	10 (47.6)
Any TRAE	20 (95.2)
≥ Grade 3	6 (28.6)
TEAE leading to Tx interruption	9 (42.9)
TEAE leading to Tx discontinuation	4 (19.0)
TEAE leading to dose reduction	8 (38.1)
TEAE leading to death	4 (19.0)

Most common TEAEs (≥ 20%), n (%)	Phase 1a (n = 21)
Anemia	16 (76.2)
Interleukin level increased	13 (61.9)
White blood cell count decreased	11 (52.4)
Neutrophil count decreased	10 (47.6)
Hyponatremia	10 (47.6)
Nausea	9 (42.9)
Hypoalbuminemia	9 (42.9)
Hyperuricemia	8 (38.1)
Aspartate aminotransferase increased	5 (23.8)
Lymphocyte count decreased	5 (23.8)
Hypochloremia	5 (23.8)

\* No infusion-related reaction was reported in this study.

TEAE, treatment-emergent adverse event; TRAE, treatment-related adverse event; Tx, treatment.

DLT: One patient in the 4 mg/kg dose group in phase 1a experienced DLTs of febrile neutropenia and decreased white blood cell count; MTD was 4 mg/kg.

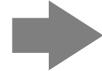
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2.5 mg/kg Q3W  
N=3-6

2.0 mg/kg Q3W  
N=3-6

1.0 mg/kg Q3W  
N=3-6

0.5 mg/kg Q3W  
N=3-6

CN only, 7 sites



## Phase 1b: NSCLC

3.0 mg/kg Q3W  
NSCLC, N=21

2.5 mg/kg Q3W  
NSCLC, N=22

2.0 mg/kg Q3W  
NSCLC, N=21

CN only, 14 sites



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# HLX43 Ph 1b Dose Expansion – Patient Demographics and Baseline Characteristics

cutoff date 2025/03/28

Median follow-up duration: 7.0 months

n (%)	Phase 1b 2.0 mg/kg (n = 21)
Median age (range), years	56 (39–73)
Male	14 (66.7)
ECOG PS	
0	5 (23.8)
1	16 (76.2)
Prior anti-cancer therapy*	
Chemotherapy+immunotherapy	16 (76.2)
Chemotherapy	11 (52.4)
Target therapy	9 (42.9)
Immunotherapy	5 (23.8)
Prior lines of therapy	
1	7 (33.3)
2	1 (4.8)
3	6 (28.6)
≥ 4	7 (33.3)
Median (range)	<b>3.0 (1–7)</b>

n (%)	Phase 1b 2.0 mg/kg (n = 21)
NSCLC subtype	
Squamous	15 (71.4)
<i>EGFR</i> wild type	100%
Nonsquamous	6 (28.6)
<i>EGFR</i> wild type	100%
Used docetaxel	
Yes	9 (42.9)
No	12 (57.1)
Brain metastasis	
Yes	6 (28.6)
No	15 (71.4)
Liver metastasis	
Yes	3 (14.3)
No	18 (85.7)
PD-L1 expression level**	
CPS ≥ 1	16 (76.2)
CPS < 1	5 (23.8)

\* Patients all received platinum-based treatment previously; \*\* Detected with SP263.

CPS, combined positive score; ECOG PS, Eastern Cooperative Oncology Group performance status; *EGFR*, epidermal growth factor receptor; NSCLC, non-small cell lung cancer; PD-L1, programmed death-ligand 1.

# HLX43 Ph 1b 2.0mg/kg Efficacy Data

cutoff date 2025/03/28

Median follow-up duration: 7.0 months

Tumor response per RECIST v1.1 <sup>a</sup>	Phase 1b 2.0 mg/kg (n = 21)
CR, n (%)	0
PR, n (%)	8 (38.1)
SD, n (%)	9 (42.9)
PD, n (%)	4 (19.0)
NE, n (%)	0
ORR, % (95% CI)	38.1 (18.1–61.6)
Confirmed ORR, % (95% CI)	33.3 (14.6–57.0)
ORR in patients who had ≥3 prior lines of therapy, %	38.5 (5/13)
DCR, % (95% CI)	81.0 (58.1–94.6)
mDOR, months (95% CI)	NR (1.4–NE)
mPFS, months (95% CI)	5.4 (4.0–6.3)
mOS, months (95% CI)	NR (6.7–NE)

Subgroup analysis of tumor response per RECIST v1.1 <sup>a</sup>	ORR % (95% CI)	DCR % (95% CI)
NSCLC subtype		
Squamous (n = 15)	40.0 (16.3–67.7)	73.3 (44.9–92.2)
Confirmed response	33.3 (11.8–61.6)	73.3 (44.9–92.2)
Nonsquamous (n = 6)	33.3 (4.3–77.7)	100 (54.1–100)
Confirmed response	33.3 (4.3–77.7)	100 (54.1–100)
Used docetaxel		
Yes (n = 9)	33.3 (7.5–70.1)	77.8 (40.0–97.2)
No (n = 12)	41.7 (15.2–72.3)	83.3 (51.6–97.9)
Brain metastasis		
Yes (n = 6)	33.3 (4.3–77.7)	100 (54.1–100)
No (n = 15)	40.0 (16.3–67.7)	73.3 (44.9–92.2)
Liver metastasis		
Yes (n = 3)	33.3 (0.8–90.6)	66.7 (9.4–99.2)
No (n = 18)	38.9 (17.3–64.3)	83.3 (58.6–96.4)
PD-L1 expression		
CPS ≥ 1 (n = 16)	37.5 (15.2–64.6)	81.3 (54.4–96.0)
CPS < 1 (n = 5)	40.0 (5.3–85.3)	80.0 (28.4–99.5)

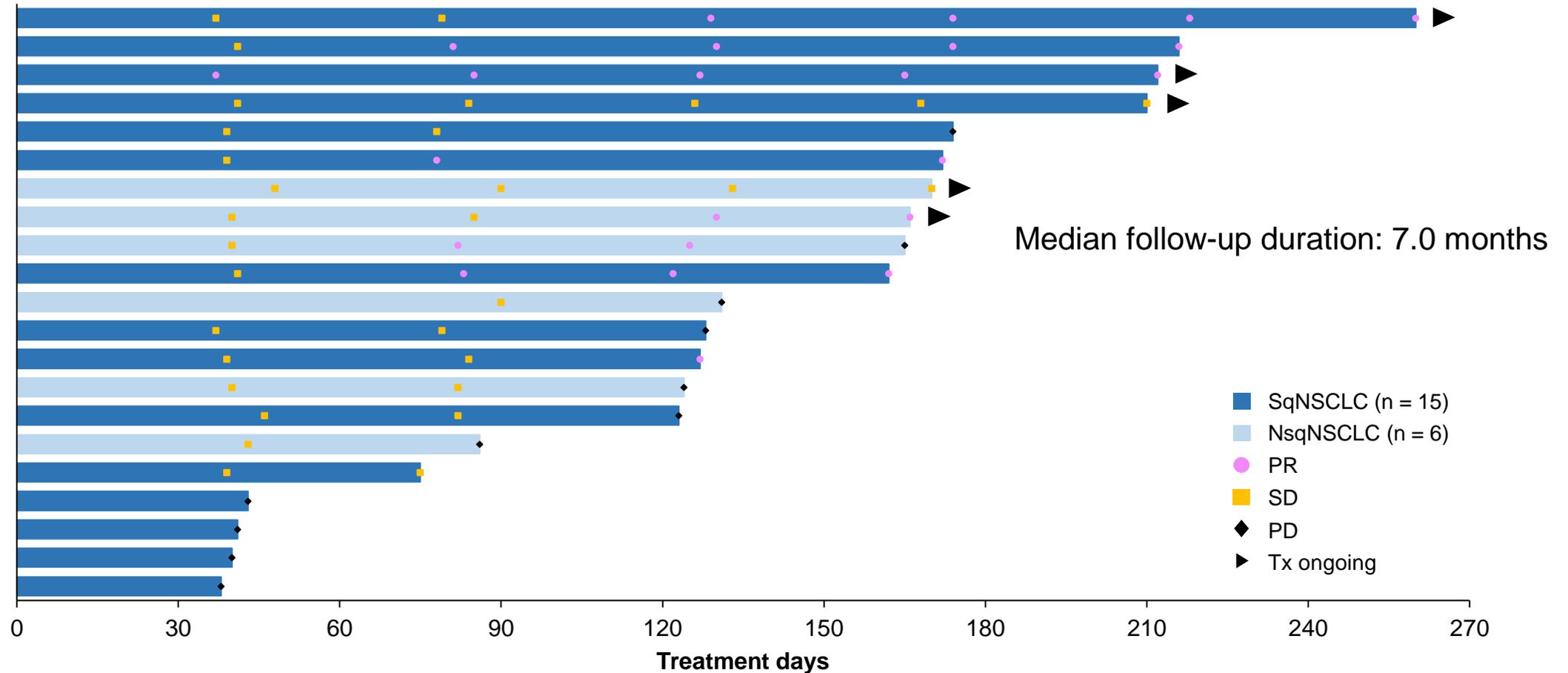
<sup>a</sup> Unconfirmed tumor response assessed by investigator.

CI, confidence interval; CPS, combined positive score; CR, complete response; DCR, disease control rate; mDOR, median duration of response; mPFS, median progression-free survival; mOS, median overall survival; NE, not evaluable; NR, not reached; NSCLC, non-small cell lung cancer; ORR, objective response rate; PD, progressive disease; PD-L1, programmed death-ligand 1; PR, partial response; RECIST, Response Evaluation Criteria in Solid Tumors; SD, stable disease.

# HLX43 Ph 1b 2.0mg/kg Efficacy Data

cutoff date 2025/03/28

## Swimmer plot of time to response and duration of study treatment<sup>a</sup>



<sup>a</sup> In efficacy-evaluable patients.

NsqNSCLC, nonsquamous non-small cell lung cancer; PD, progressive disease; PR, partial response; SD, stable disease; sqNSCLC, squamous non-small cell lung cancer; Tx, treatment.



# HLX43 Ph 1b 2.0mg/kg Safety Data

cutoff date 2025/03/28

Median follow-up duration: 7.0 months

Summary of adverse events, n (%)	Phase 1b 2.0 mg/kg (n = 21)
Any TEAE*	21 (100)
≥ Grade 3**	11 (52.4)
≥ Grade 3 (≥ 10%)	
Anemia	3 (14.3)
Lymphocyte count decreased	3 (14.3)
Serious	11 (52.4)
Any TRAE	21 (100)
≥ Grade 3	9 (42.9)
TEAE leading to Tx interruption	10 (47.6)
TEAE leading to Tx discontinuation	2 (9.5)
TEAE leading to dose reduction	0
TEAE leading to death	3 (14.3)

Most common TEAEs (≥ 20%), n (%)	Phase 1b 2.0 mg/kg (n = 21)
Anemia	16 (76.2)
Decreased appetite	12 (57.1)
Nausea	11 (52.4)
Hypoalbuminemia	8 (38.1)
Neutrophil count decreased	8 (38.1)
White blood cell count decreased	8 (38.1)
Constipation	7 (33.3)
Hyponatremia	7 (33.3)
Vomiting	7 (33.3)
Alanine aminotransferase increased	6 (28.6)
Aspartate aminotransferase increased	6 (28.6)
Interleukin level increased	6 (28.6)
Hypertriglyceridemia	6 (28.6)
Lymphocyte count decreased	6 (28.6)
Hypochloremia	5 (23.8)
Pneumonia	5 (23.8)
Proteinuria	5 (23.8)
Weight decreased	5 (23.8)

\* No infusion-related reaction was reported in this study.

\*\* No Grade 3 or higher platelet count decreased was reported; only 3 patients (14.3%, 3/21) experienced Grade 1 platelet count decreased.

TEAE, treatment-emergent adverse event; TRAE, treatment-related adverse event; Tx, treatment.

# Conclusion: First Clinical-stage, Biomarker-independent ADC with IO Activity

A

## Broad Therapeutic Effects

Outstanding efficacy across multiple tumor types, including TSCC, heavily treated NSCLC:

- TSCC ORR: 75% (vs. historical 25%)
- $\geq$  4L NSCLC ORR: 38.5%
- sqNSCLC ORR: 40%
- 100% DCR in NSCLC patients with brain metastasis

B

## Biomarker Independent

Efficacy in various types of NSCLC

- squamous, non-squamous
- with or without EGFR mutation
- with or without brain/liver metastasis
- PD-L1 positive and negative

C

## Favorable Safety Profile

2.0 mg/kg: low hematologic toxicity\*, supporting future expansion into 1L therapy and combination regimens

- anemia 14.3%
- lymphocyte count decreased 14.3%
- platelet count decreased 0%
- neutrophil count decreased 0%



## Potential of HLX43

HLX43 is an ADC with the potential for comprehensive coverage of cancer treatment and immunotherapy functionality.



## Future Plans

HLX43 development in multiple tumor types and the exploration of various combination therapies, including combining it with serplulimab

\*  $\geq$  Grade 3 TRAE

# Thanks!

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PATIENT  
CENTRICITY 为**中心**

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