



Harnessing the Power of TIL Through Precision Cancer Biology in Non-Squamous Metastatic Non-Small-Cell Lung Cancer

Supplemental Investor Presentation

October 2026

ADVANCING IMMUNO-ONCOLOGY

What Makes a Tumor Responsive to TIL?

Tumor Harvest and TIL Expansion

TIL are isolated from the tumor, expanded to billions of cells, and reinfused.

Reinfused TIL Recognize Tumor Cells

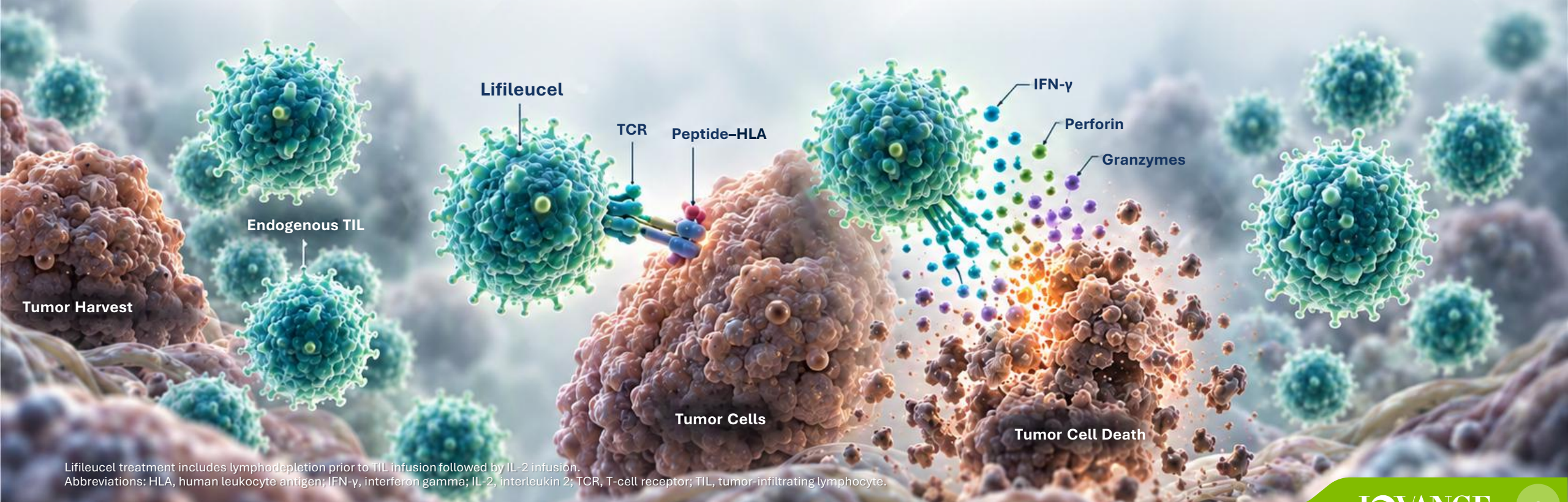
Reinfused TIL traffic to the tumor, recognize cancer cells, and bind to tumor antigens.

TIL Activation and Tumor-Cell Death

Upon recognition, TIL are activated, releasing effector molecules to induce cell death.

Antitumor Activity With Persistence

Infused lifileucel persist in the body and support polyclonal antitumor recognition and activity.



Lifileucel treatment includes lymphodepletion prior to TIL infusion followed by IL-2 infusion.
Abbreviations: HLA, human leukocyte antigen; IFN- γ , interferon gamma; IL-2, interleukin 2; TCR, T-cell receptor; TIL, tumor-infiltrating lymphocyte.

Unmasking the Tumor Microenvironment in NSCLC

IOV-LUN-202 – Phase 2b Registration-Enabled Trial in NSCLC

Phase 2 Multicenter Study of Lifileucel in Post-Anti-PD-1 Metastatic NSCLC [NCT04614103]

Patient Population

Unresectable or metastatic NSCLC with progression on or after prior anti-PD-1 treatment and chemotherapy

> 70 sites in U.S., Canada, Europe, APAC

Registrational Cohorts

Cohort 1
≤ 1% or unknown TPS

Cohort 2
≥ 1% TPS

IOV-LUN-202 is designed to enroll patients with advanced NSCLC post anti-PD-1 treatment

Endpoints

- Primary: ORR per RECIST v1.1 by IRC
- Secondary: CR rate, DOR, DCR, PFS, OS, safety, and tolerability

Note: Unresectable or metastatic NSCLC with progression on or after prior anti-PD-1 treatment and chemotherapy, and *KRAS* inhibitor if *KRAS* mutation is present. Abbreviations: anti-PD-1, anti-programmed cell death protein 1; APAC, Asia-Pacific; CR, complete response; DCR, disease control rate; DOR, duration of response; IRC, independent review committee; *KRAS*, Kirsten rat sarcoma viral oncogene homolog; NSCLC, non-small cell lung cancer; ORR, objective response rate; OS, overall survival; PFS, progression-free survival; RECIST, Response Evaluation Criteria in Solid Tumors; TPS, tumor proportion score.

Baseline Characteristics

Non-Squamous and Squamous Metastatic NSCLC After Prior Anti-PD-1 Treatment and Chemotherapy

Demographics and Disease		N = 84	Biomarkers, Prior Therapy, and Cell Dose		N = 84
Age, Years	Median [range]	62 [26–78]	KRAS Status	Mutant	35 [41.7%]
	<65	54 [64.3%]		Wild-type	44 [52.4%]
	≥ 65	30 [35.7%]		Unknown	5 [6.0%]
Sex	Male	50 [59.5%]	HER2 Status	Mutant	4 [4.8%]
	Female	34 [40.5%]		Wild-type	71 [84.5%]
ECOG Status ¹	0	46 [54.8%]		Amplified	1 [1.2%]
	1	37 [44.0%]		Unknown	8 [9.5%]
	2	1 [1.2%]	Prior Therapy Exposure ³	PD-[L]1 + chemotherapy	84 [100.0%]
Smoking History	Ever smoker	74 [88.1%]		PD-[L]1 only	0 [0.0%]
	Never smoker	10 [11.9%]		Chemotherapy only	0 [0.0%]
PD-L1 TPS ²	< 1%	32 [38.1%]	Prior Lines	1	73 [86.9%]
	1–49%	33 [39.3%]		2	11 [13.1%]
	≥ 50%	16 [19.0%]	Infused TVC, Billion Cells	Mean	30.2
	Unknown	3 [3.6%]		Median [range]	29.9 [10.0–60.0]
Histology	Non-squamous	69 [82.1%]		10 to < 20	21 [25.0%]
	Squamous	15 [17.9%]		20 to < 40	39 [46.4%]
Baseline SOD	Median [range], mm	56.0 [10.0–258.4]		≥ 40	24 [28.6%]

¹ECOG measured pre-lymphodepletion. Ever smoker = former/current. Non-squamous: 68 adenocarcinoma + 1 LCNEC. ²Recorded site PD-L1 category; unknown retained. WT = no alteration detected; HER2 amplification is separate from mutation. ³Prior exposure at any time: PD-1/PD-L1 therapy and chemotherapy, concurrent or sequential; other therapies may also have been given. ⁴Same prior-KRAS-treatment rule: 88 patients at TVC ≥ 10B minus 4 G12C cases without documented prior sotorasib/adagrasib = 84. Abbreviations: ECOG, Eastern Cooperative Oncology Group; HER2, human epidermal growth factor receptor 2; KRAS, Kirsten rat sarcoma viral oncogene homolog; LCNEC, large cell neuroendocrine carcinoma; PD-L1, programmed death-ligand 1; PS, performance status; SOD, sum of diameters; TPS, tumor proportion score; TVC, total viable cells; WT, wild-type.

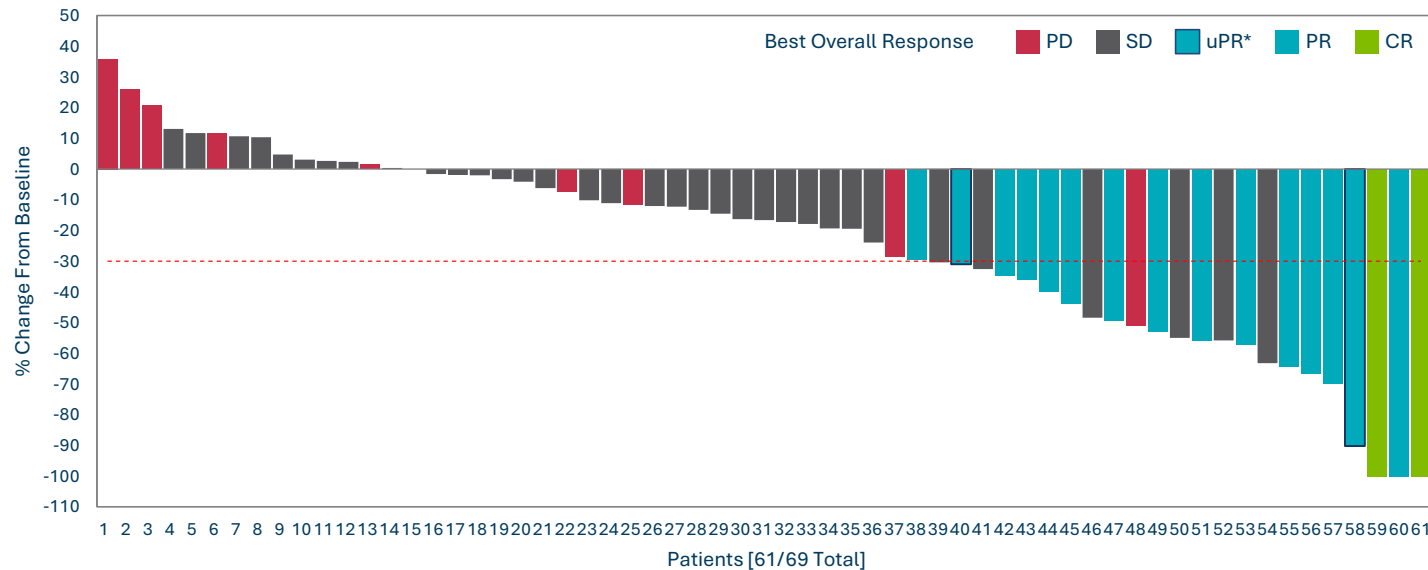
Best Response – Unselected Non-Squamous NSCLC

Non-Squamous Metastatic NSCLC After Prior Anti-PD-1 Treatment and Chemotherapy

24.6% ORR [17/69]

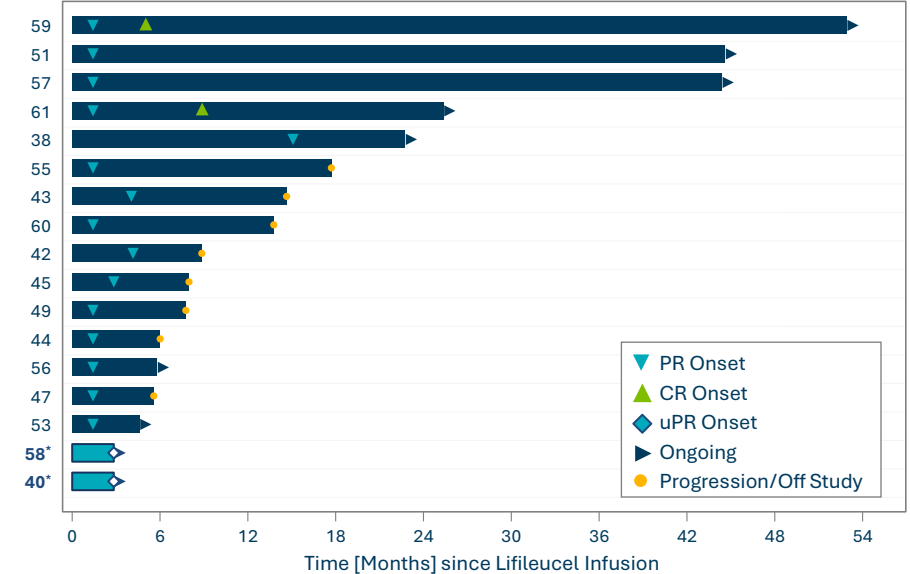
-24.2% Mean SOD

Best Percentage Change From Baseline in Target Lesion by RECIST v1.1



Durability of Response¹

15 Confirmed Responders + 2 Unconfirmed PRs*



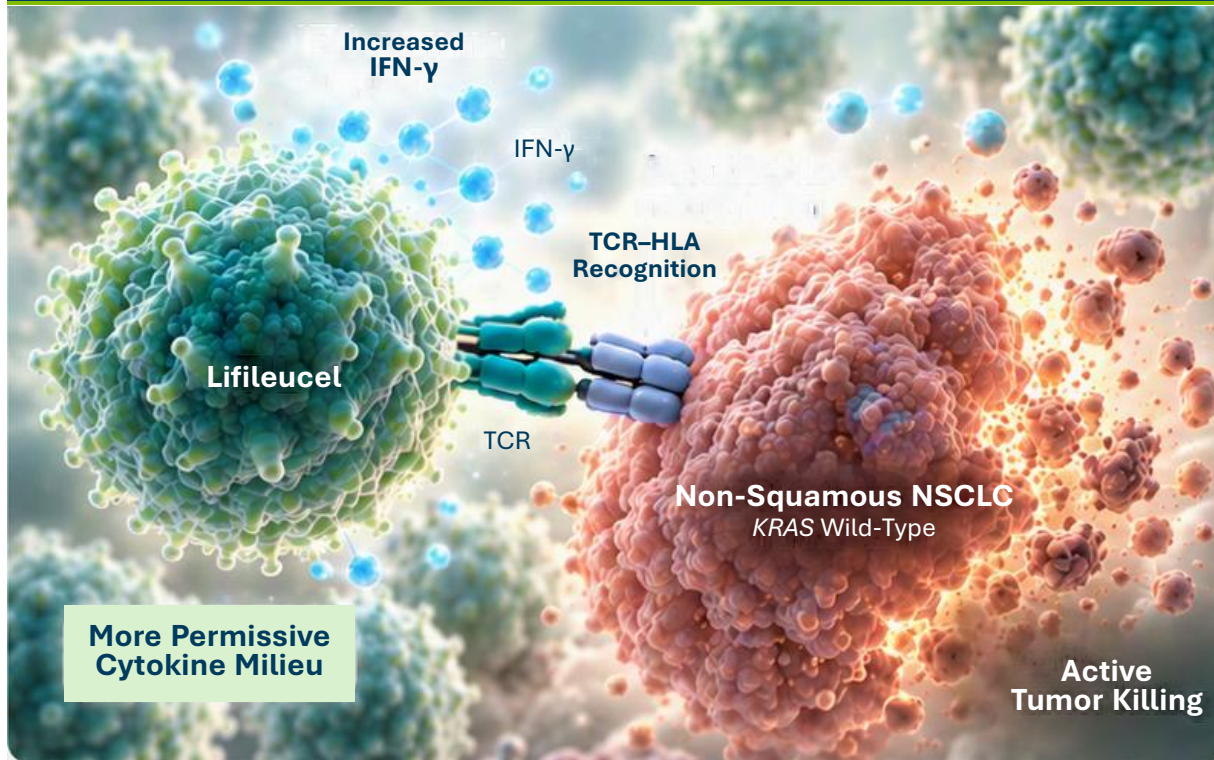
Data as of 14-Oct-2026 includes partial IRC; Non-squamous NSCLC, infused TVC ≥ 10 billion; KRAS prior-treatment sensitivity population [n=69]. ORR = 17/69 [15 confirmed responses + 2 uPRs]. mSOD = -24.2% across 61 numerical values. Eight patients without numerical SOD remain in the ORR denominator. No imputation. ¹Patient numbers match the waterfall. *Patients 40 (1143-104) and 58 (1207-103): Day 84 uPR; confirmation pending, no confirmed DOR assigned. Patient 40: -31%, Swimmer time is measured from infusion. Abbreviations: CR, complete response; mDOR, median duration of response; SOD, sum of diameters; NSCLC, non-small cell lung cancer; ORR, objective response rate; PD, progressive disease; PR, partial response; RECIST, Response Evaluation Criteria in Solid Tumors; SD, stable disease; TVC, total viable cells; uPR, unconfirmed partial response.

A New Paradigm in Immuno-Oncology: Precision TIL in NSCLC

Unmasking the Biology of TIL in NSCLC

KRAS Wild-Type Tumors

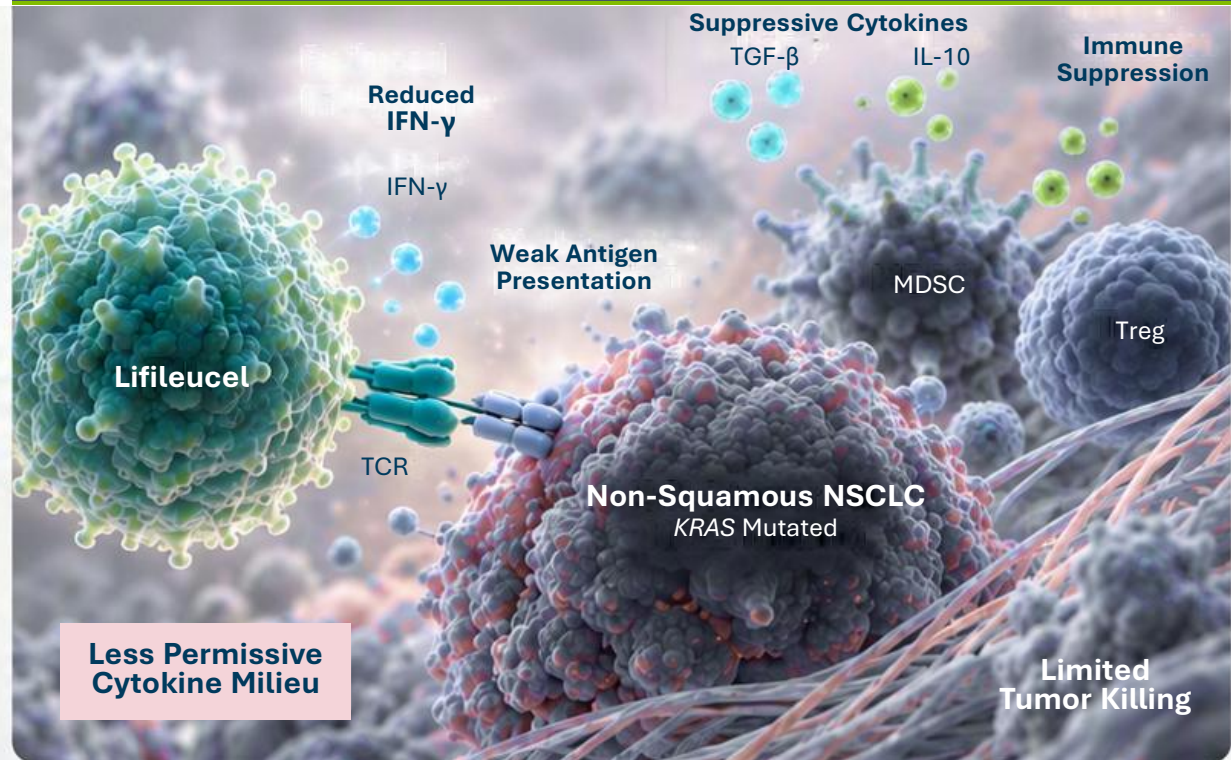
Permissive tumor microenvironment



More effective immune recognition, higher IFN-γ signaling, and active tumor killing in a permissive microenvironment.

KRAS-Mutant Tumors

Suppressive tumor microenvironment



Reduced antigen presentation, lower IFN-gamma signaling, and increased TGF-β/IL-10 in a suppressive microenvironment limits TIL activity.

Co-mutations and other factors may modify these states. Abbreviations: HLA, human leukocyte antigen; IFN-γ, interferon gamma; IL-10, interleukin 10; MDSC, myeloid-derived suppressor cell; NSCLC, non-small cell lung cancer; TCR, T-cell receptor; TGF-β, transforming growth factor beta; TIL, tumor-infiltrating lymphocyte; Treg, regulatory T cell.

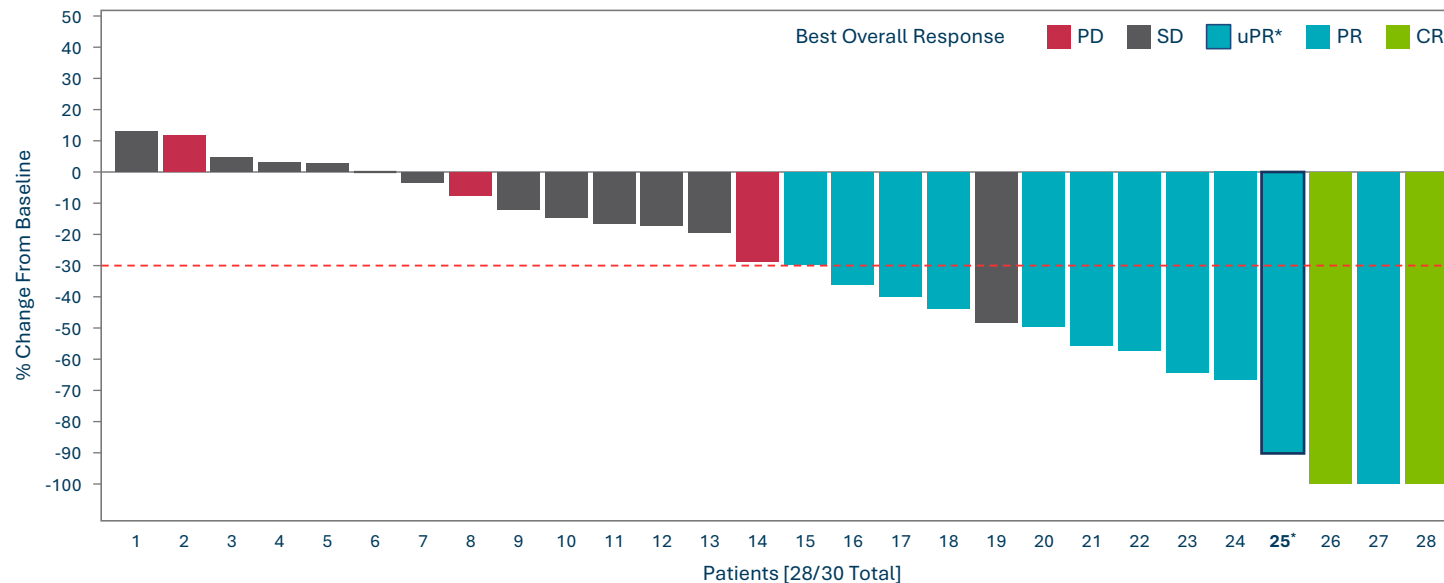
Best Response – *KRAS* Wild-Type in NSCLC

Non-Squamous Metastatic NSCLC After Prior Anti-PD-1 Treatment and Chemotherapy

43.3% ORR [13/30]

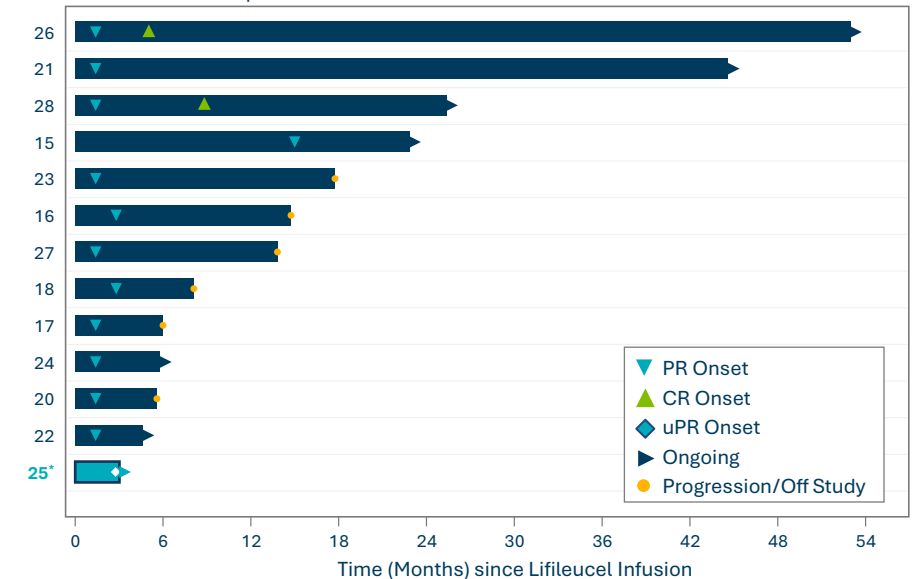
-34.5% Mean SOD

Best Percentage Change From Baseline in Target Lesion by RECIST v1.1



Durability of Response¹

12 Confirmed Responders + 1 Unconfirmed PR*



Data as of 14-Oct-2026 includes partial IRC; *KRAS*^{WT} non-squamous NSCLC, infused TVC ≥ 10 billion [n=30]. ORR = 13/30 [12 confirmed responses + 1 uPR]. Mean best SOD = -34.5% across 28 numerical values; 2 patients without numerical SOD remain in the ORR denominator. No imputation. ¹Patient numbers match the waterfall. *Patient 25 [1207-103]: Day 84 uPR; confirmation pending; no confirmed DOR assigned. Swimmer lane time is measured from infusion. -30% alone does not establish a RECIST response. Abbreviations: CR, complete response; mDOR, median duration of response; PD, progressive disease; PR, partial response; SD, stable disease; SOD, sum of diameters; uPR, unconfirmed partial response.

KRAS Enriched Subgroup Comparison in NSCLC

Non-Squamous Metastatic NSCLC After Prior Anti-PD-1 Treatment and Chemotherapy

Metrics	KRAS Wild-Type	KRAS Mutant
Population [N=69]	30	35
Confirmed ORR	40.0% [12/30]	8.6% [3/35]
Confirmed + uPR ORR	43.3% [13/30]	11.4% [4/35]
Mean SOD Change	-34.5%	-13.8%
Median SOD Change	-29.1%	-11.3%

Notes: Same all-comer eligibility basis as the waterfall slide [non-squamous NSCLC, infused TVC ≥10 billion]. Confirmed + uPR ORR includes one unconfirmed PR in KRAS^{WT} and one in KRAS mutation. Four patients with KRAS status recorded as Not Assessed are excluded from the side-by-side comparison table. Abbreviations: KRAS, Kirsten rat sarcoma viral oncogene homolog; NSCLC, non-small cell lung cancer; ORR, objective response rate; SOD, sum of diameters; TVC, total viable cells; uPR, unconfirmed partial response; WT, wild-type.

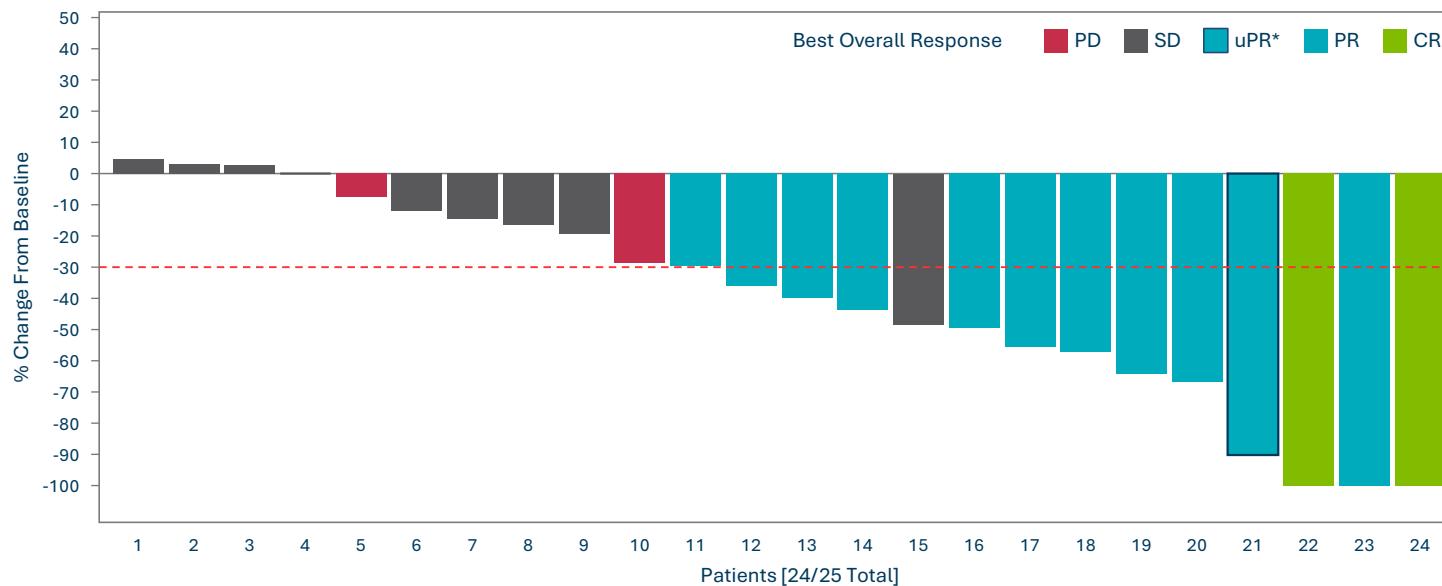
Best Response – *KRAS* Wild-Type + *HER2* Wild-Type in NSCLC

Non-Squamous Metastatic NSCLC After Prior Anti-PD-1 Treatment and Chemotherapy

52.0% ORR [13/25]

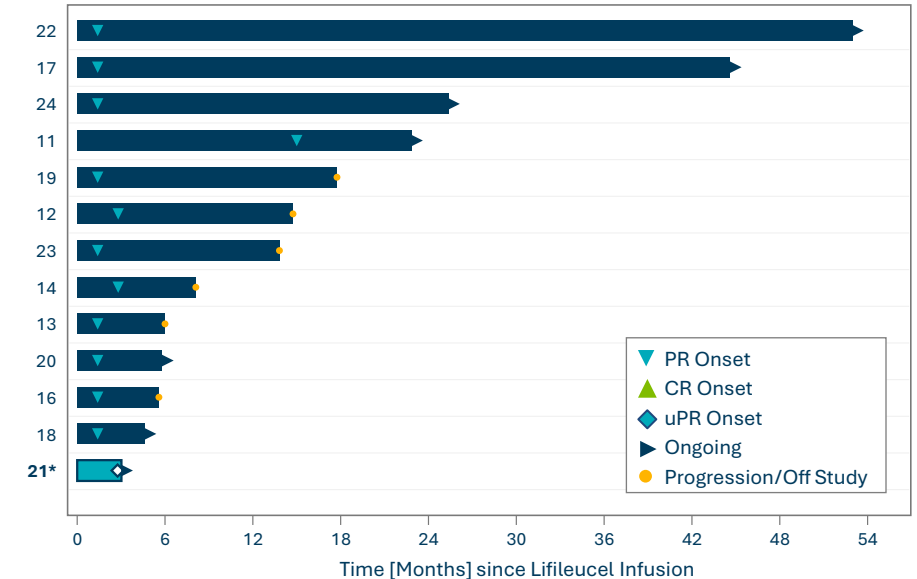
-40.4% Mean SOD

Best Percentage Change From Baseline in Target Lesion by RECIST v1.1



Durability of Response¹

12 Confirmed Responders + 1 Unconfirmed PR*



Data as of 14-Oct-2026 includes partial IRC; *KRAS*^{WT} + *HER2*^{WT} non-squamous NSCLC, infused TVC ≥10 billion [n=25]. ORR = 13/25 [12 recorded confirmed responses + 1 uPR]. Mean best SOD = -40.4% across 24 numerical values; 1 patient without numerical SOD remains in the ORR denominator. No imputation. ¹Swimmer lane times are approximate, measured from infusion. *Patient 21 [1207-103]: Day 84 uPR; confirmation pending. Abbreviations: CR, complete response; DOR, duration of response; HER2, human epidermal growth factor receptor 2; mDOR, median duration of response; SOD, sum of diameters; PD, progressive disease; PR, partial response; SD, stable disease; SOD, sum of diameters; uPR, unconfirmed partial response; WT, wild-type.

KRAS Enriched Subgroup Comparison in NSCLC

Non-Squamous Metastatic NSCLC After Prior Anti-PD-1 Treatment and Chemotherapy

Metrics	<i>KRAS</i> Wild-Type	<i>KRAS</i> Wild-Type <i>HER2</i> Wild-Type	<i>KRAS</i> Mutant
Population [N=69]	30	25	35
Confirmed ORR	40.0% [12/30]	48% [12/25]	8.6% [3/35]
Confirmed + uPR ORR	43.3% [13/30]	52.0% [13/25]	11.4% [4/35]
Mean SOD Change	-34.5%	-40.4%	-13.8%
Median SOD Change	-29.1%	-38.1%	-11.3%

Notes: Same all-comer eligibility basis as the waterfall slide [non-squamous NSCLC, infused TVC ≥10 billion, prior-treatment sensitivity adjustment]. Confirmed + uPR ORR includes one unconfirmed PR in *KRAS*^{WT} and the double gate, and one in *KRAS* mutant. Four *KRAS*-unassessed patients are excluded. *KRAS*^{WT} + *HER2*^{WT} is a subset of *KRAS*^{WT}, not an independent cohort. Abbreviations: CR, complete response; DOR, duration of response; HER2, human epidermal growth factor receptor 2; mDOR, median duration of response; mSOD, mean sum of diameters; PD, progressive disease; PR, partial response; SD, stable disease; SOD, sum of diameters; uPR, unconfirmed partial response; WT, wild-type.

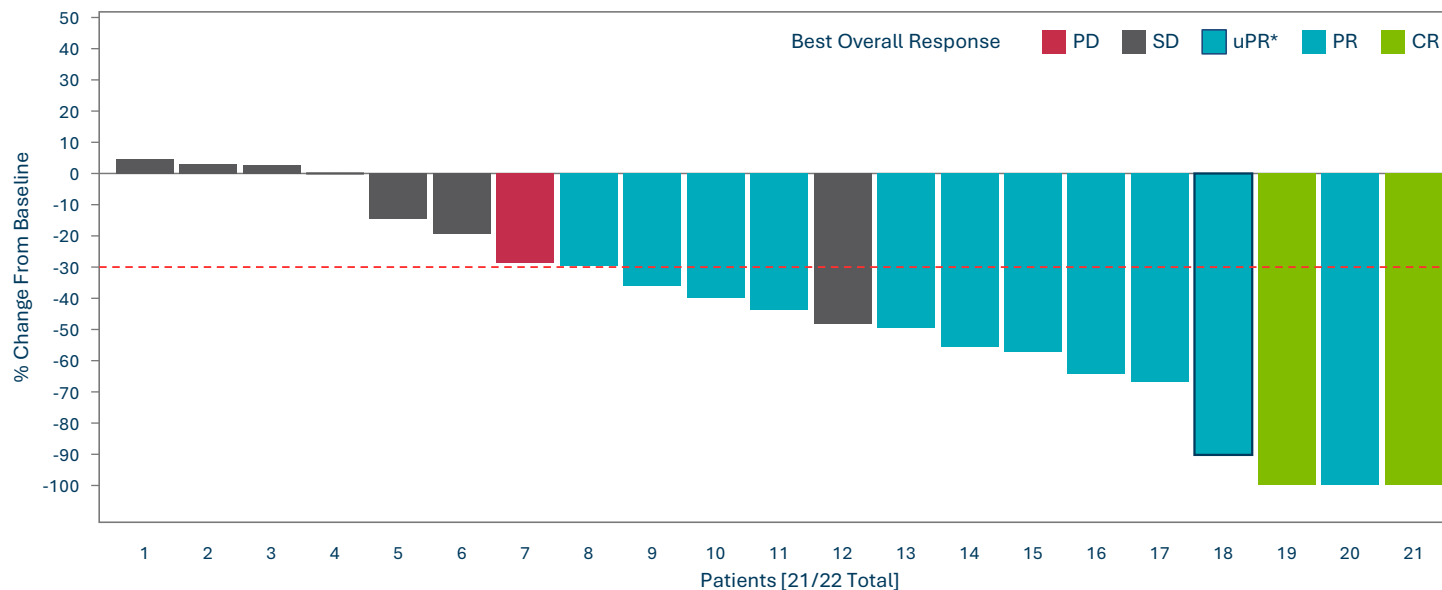
Best Response – *KRAS* Wild-Type + *HER2* Wild-Type + Ever Smoker

Non-Squamous Metastatic NSCLC After Prior Anti-PD-1 Treatment and Chemotherapy

59.1% ORR [13/22]

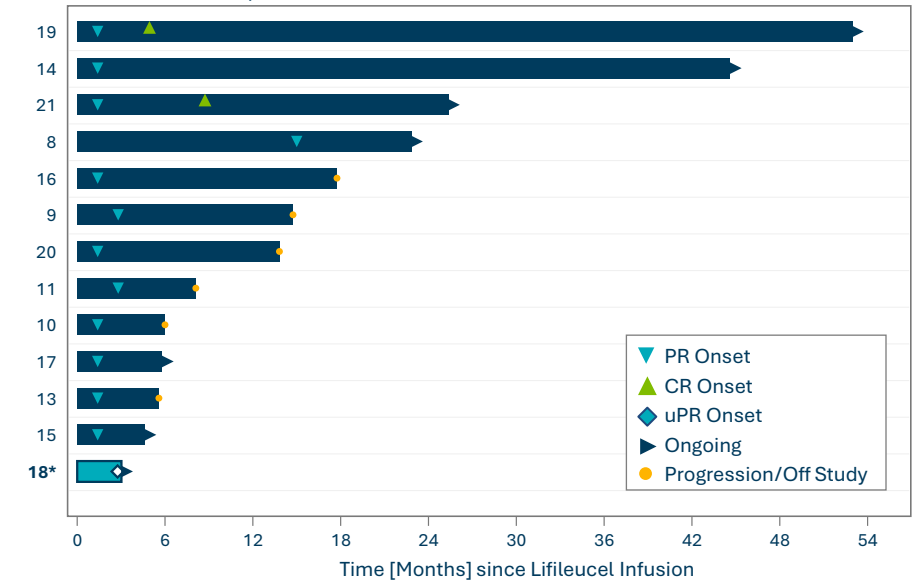
-44.4% Mean SOD

Best Percentage Change From Baseline in Target Lesion by RECIST v1.1



Durability of Response¹

12 Confirmed Responders + 1 Unconfirmed PR*



Data as of 14-Oct-2026 includes partial IRC; *KRAS*^{WT} + *HER2*^{WT} + ever-smoker non-squamous NSCLC, infused TVC ≥10 billion [n=22]. ORR = 13/22 [12 recorded confirmed responses + 1 uPR]. Mean best SOD = -44.4% across 21 numerical values; one patient without numerical SOD remains in the ORR denominator. No imputation. ²Swimmer lane times are approximate, measured from infusion. *Patient 18 [1207-103]: Day 84 uPR; confirmation pending; response. Abbreviations: CR, complete response; HER2, human epidermal growth factor receptor 2; mDOR, median duration of response; PD, progressive disease; PR, partial response; SD, stable disease; SOD, sum of diameters; uPR, unconfirmed partial response; WT, wild-type.

KRAS Enriched Subgroup Comparison in NSCLC

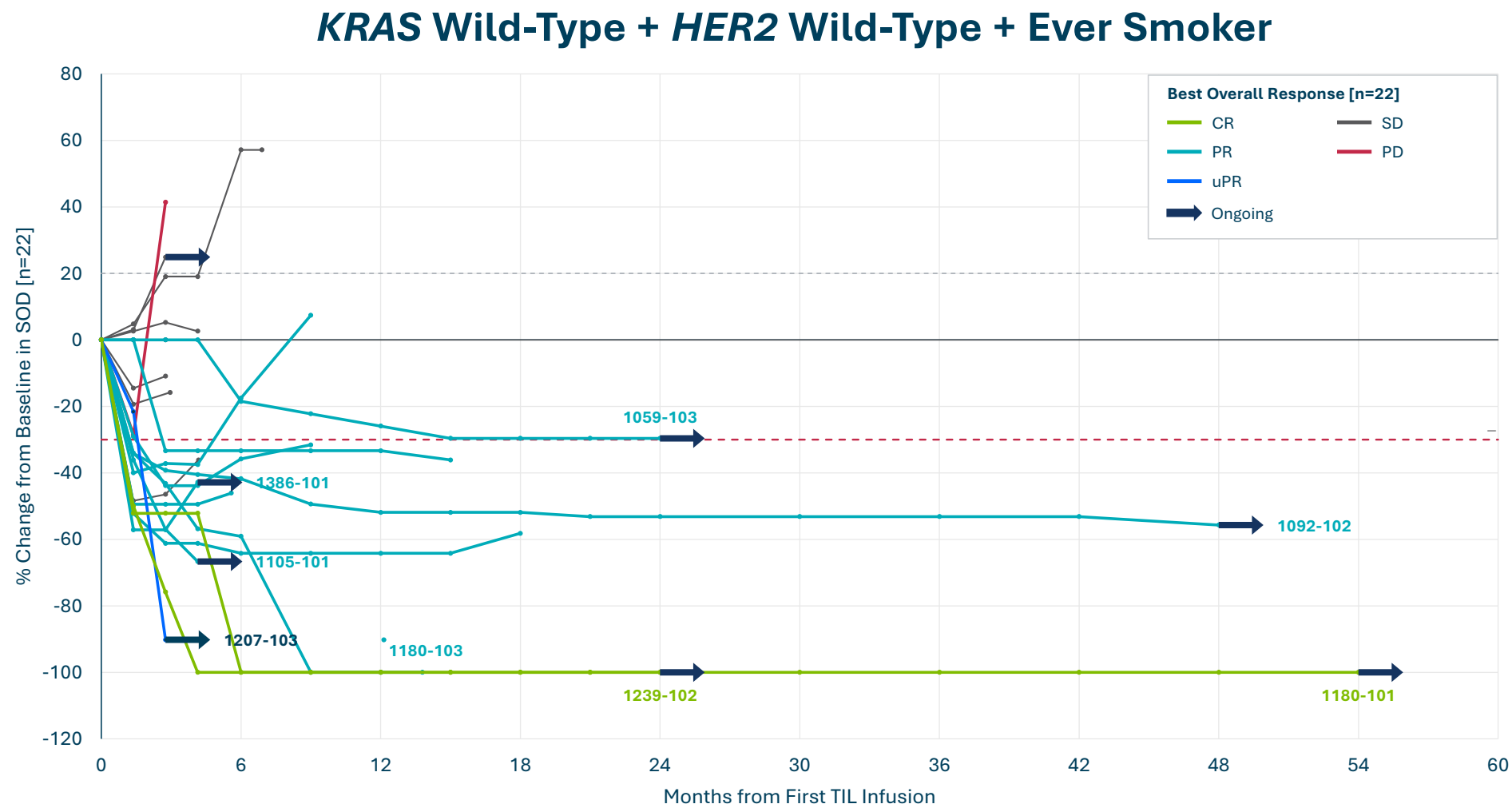
Non-Squamous Metastatic NSCLC After Prior Anti-PD-1 Treatment and Chemotherapy

Metrics	<i>KRAS</i> ^{WT}	<i>KRAS</i> ^{WT} <i>HER2</i> ^{WT}	<i>KRAS</i> ^{WT} <i>HER2</i> ^{WT} Ever-Smoker	<i>KRAS</i> ^{MUT}	<i>HER2</i> ^{MUT}	Never Smoker
Population [N = 69]	30	25	22	35	5	9
Confirmed ORR	40.0% [12/30]	48.0% [12/25]	54.5% [12/22]	8.6% [3/35]	0.0% [0/5]	0.0% [0/9]
Confirmed + uPR ORR	43.3% [13/30]	52.0% [13/25]	59.1% [13/22]	11.4% [4/35]	0.0% [0/5]	0.0% [0/9]
Mean SOD Change	-34.5%	-40.4%	-44.4%	-13.8%	-2.5%	-5.7%
Median SOD Change	-29.1%	-38.1%	-43.9%	-11.3%	+4.2%	-8.8%

Notes: N=69 non-squamous NSCLC, TVC ≥ 10B; Data as of 14-Oct-2026 includes partial IRC. Confirmed + uPR ORR includes 1 uPR in each WT/gated group; one in *KRAS* mutant. Never smokers include all 9, including 1 *KRAS*-unassessed patient. Ever-smoker = former/current. SOD summaries omit missing values; ORR does not. Abbreviations: *KRAS*, Kirsten rat sarcoma viral oncogene homolog; NSCLC, non-small cell lung cancer; ORR, objective response rate; SOD, sum of diameters; TVC, total viable cells; uPR, unconfirmed partial response; WT, wild-type.

Spider Plot – *KRAS* Wild-Type + *HER2* Wild-Type + Ever Smoker

Non-Squamous Metastatic NSCLC After Prior Anti-PD-1 Treatment and Chemotherapy



Date as of 14-Oct-2026.

Note: One patient has no plottable time-series data.

Best Response – *KRAS* Mutant Subgroup Comparison in NSCLC

Non-Squamous Metastatic NSCLC After Prior Anti-PD-1 Treatment and Chemotherapy

KRAS Mutant

11.4% ORR [4/35]

Mean SOD: -13.8%

KRAS Mutant + *HER2* Wild-Type

12.1% ORR [4/33]

Mean SOD: -15.2%

KRAS Mutant + Ever-Smoker

12.9% ORR [4/31]

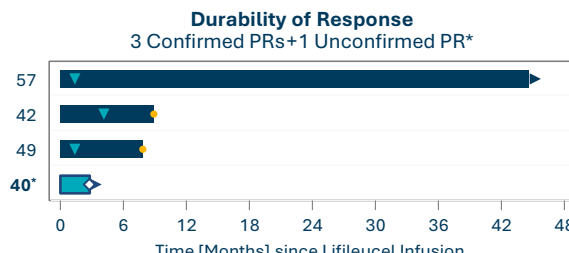
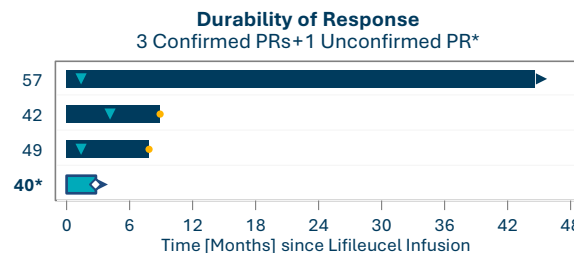
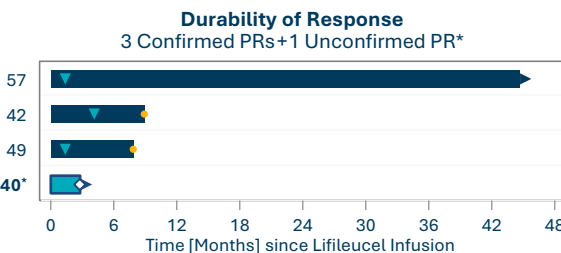
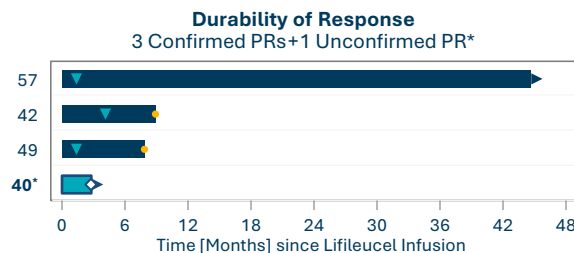
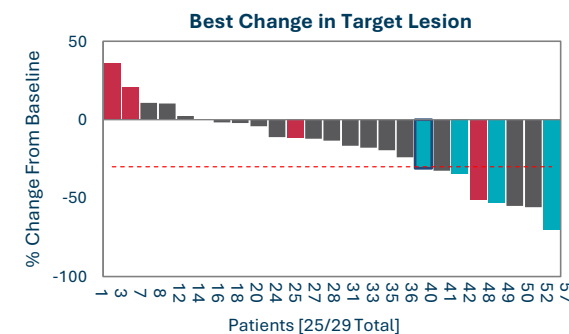
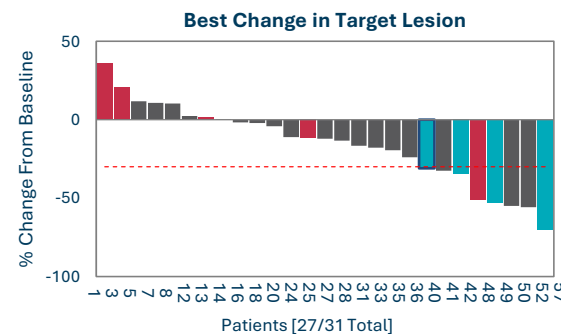
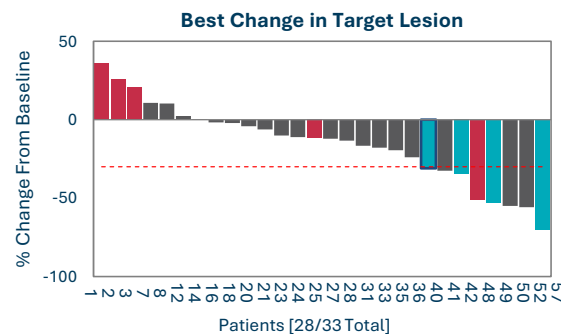
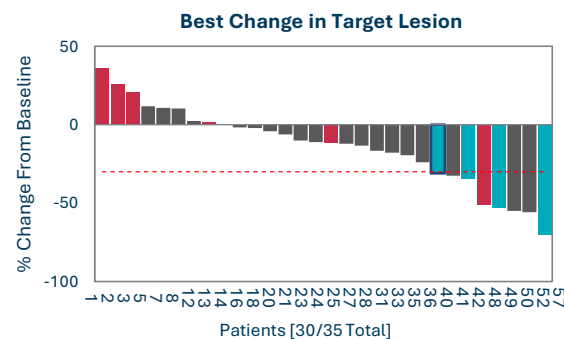
Mean SOD: -15.7%

KRAS Mutant + *HER2* Wild-Type + Ever-Smoker

13.8% ORR [4/29]

Mean SOD: -17.5%

Best Overall Response PD SD uPR* PR



▼ Response Visit ◆ uPR [Day 84] ► Ongoing Assessment ● End of Assessment

Data as of 14-Oct-2026 includes partial IRC; Cohorts 1 and 2. NE patients remain in the ORR denominator. *HER2*^{WT} includes "Not Detected". Ever smoker = current/former. *Patient 40 (1143-104): -31% at Day 84, PI-reported uPR. Patient numbers match the reference slide; groups overlap. Lanes run from infusion to recorded assessment end or 13-Oct-2026 if ongoing. Abbreviations: *HER2*, human epidermal growth factor receptor 2; *KRAS*, Kirsten rat sarcoma viral oncogene homolog; MUT, mutant; NE, not evaluable; ORR, objective response rate; SOD, sum of diameters; uPR, unconfirmed partial response; WT, wild-type.

Posi*T*/Lity – Phase 2b Registration-Enabled Trial in NSCLC

Phase 2 Multicenter Enriched Study of Lifileucel in Post-Anti-PD-1 and Chemotherapy Metastatic NSCLC [NCT04614103]

Patient Population

Unresectable or metastatic non-squamous NSCLC patients who are wild type for EGFR, ALK, ROS1, KRAS, and HER2 genomic alterations who have a current or prior tobacco smoking history with progression on or after prior anti-PD-1 treatment and chemotherapy

> 70 sites in U.S., Canada, Europe, APAC

Registrational LUN-202 Cohort 5

Cohort 5
N = 80

Endpoints

Primary:

ORR by RECIST v1.1 with IRC

Secondary:

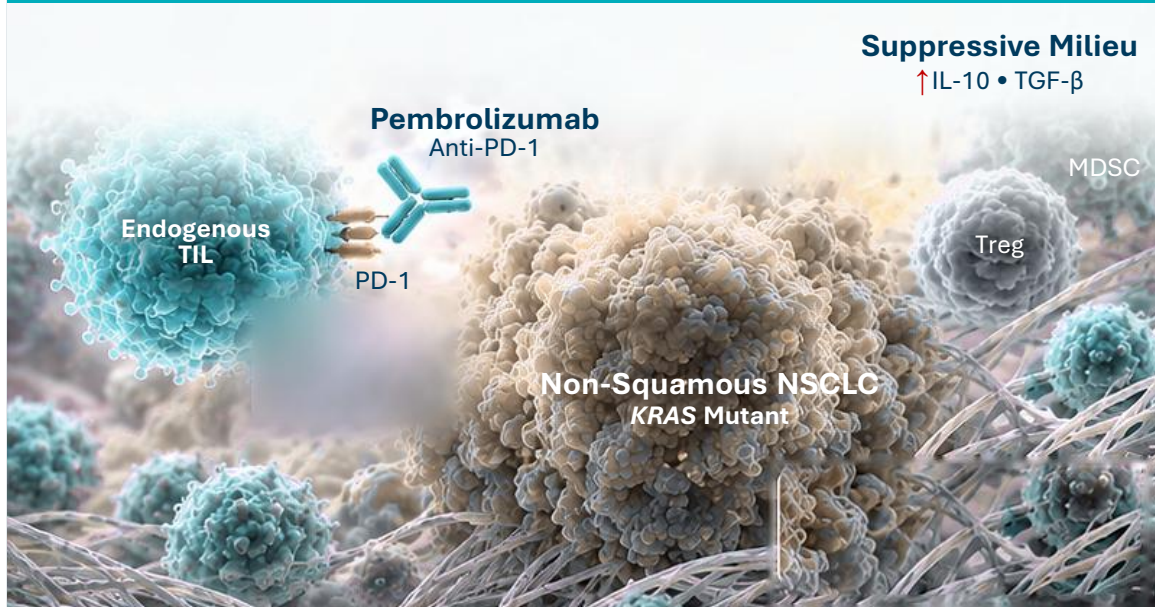
CR rate, DOR, DCR, PFS, OS, safety and tolerability

Abbreviations: ALK, anaplastic lymphoma kinase; anti-PD-1, anti-programmed cell death protein 1; APAC, Asia-Pacific; CR, complete response; DCR, disease control rate; DOR, duration of response; EGFR, epidermal growth factor receptor; *HER2*, human epidermal growth factor receptor 2; IRC, independent review committee; *KRAS*, Kirsten rat sarcoma viral oncogene homolog; NSCLC, non-small cell lung cancer; ORR, objective response rate; OS, overall survival; PFS, progression-free survival; RECIST v1.1, Response Evaluation Criteria in Solid Tumors version 1.1; ROS1, ROS proto-oncogene 1; TPS, tumor proportion score.

Complementary Biology in *KRAS* Enriched Frontline NSCLC

Pembrolizumab

PD-1 blockade supports endogenous TIL activity

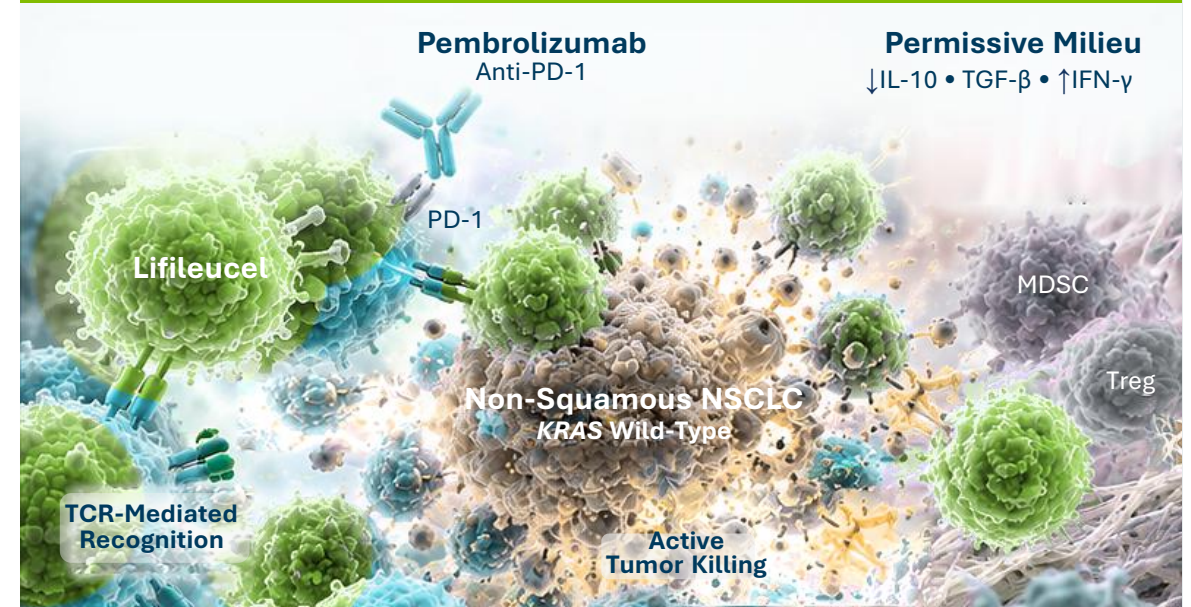


Pembrolizumab Reinvigorates Endogenous TIL

Releases PD-1 pathway inhibition

Pembrolizumab + Lifileucel

PD-1 blockade plus expanded autologous TIL



Lifileucel Adds Increased Polyclonal TIL Population

Broad neoantigen recognition and persistence

Study Hypothesis: Can add-on lifileucel deepen responses and prolong disease control?

Note: TIL regimen includes lymphodepletion and IL-2 support.

Abbreviations: IFN-γ, interferon gamma; IL-2, interleukin 2; IL-10, interleukin 10; MDSC, myeloid-derived suppressor cell; NSCLC, non-small cell lung cancer; PD-1, programmed cell death protein 1; TCR, T-cell receptor; TGF-β, transforming growth factor beta; TIL, tumor-infiltrating lymphocyte; Treg, regulatory T cell.

Best Response – Phase 2 Study in Frontline Enriched NSCLC

Pembrolizumab Plus Lifleucel in Anti-PD-1 and Chemotherapy-Naïve Frontline Non-Squamous Metastatic NSCLC

64.3% ORR [9/14]

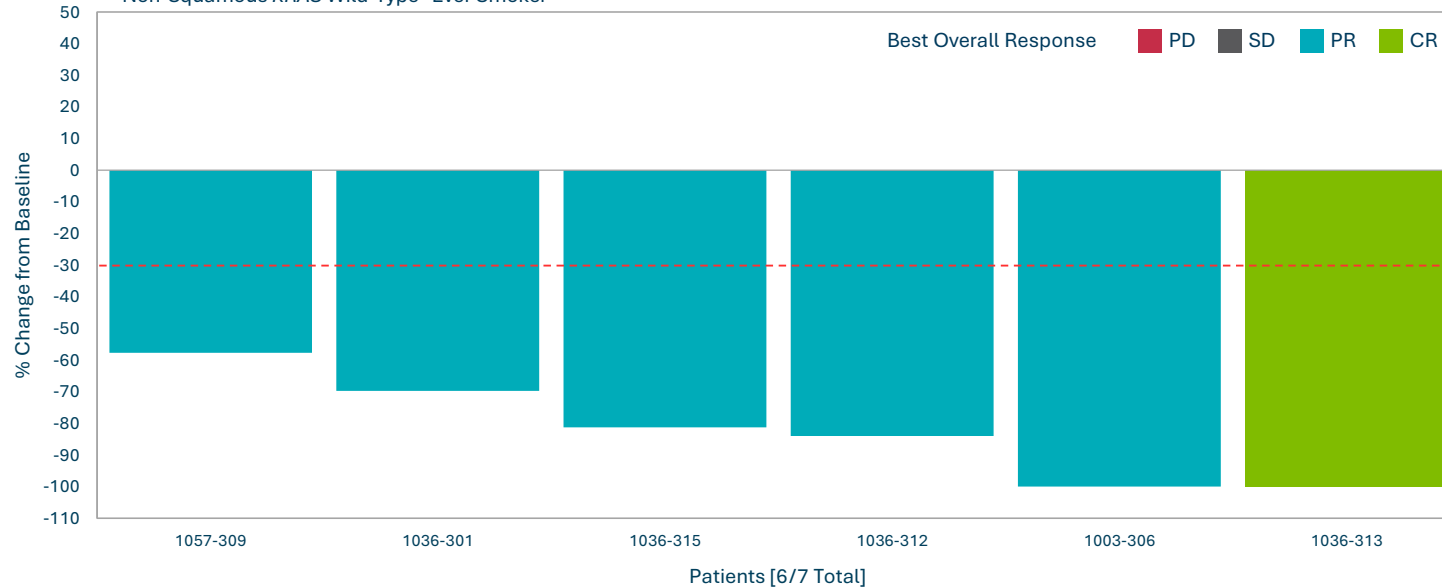
Frontline Non-Squamous NSCLC – *EGFR* Wild-Type Only

85.7% ORR [6/7]

Frontline Non-Squamous NSCLC – *KRAS* Wild-Type + *EGFR* Wild-Type + Ever Smoker

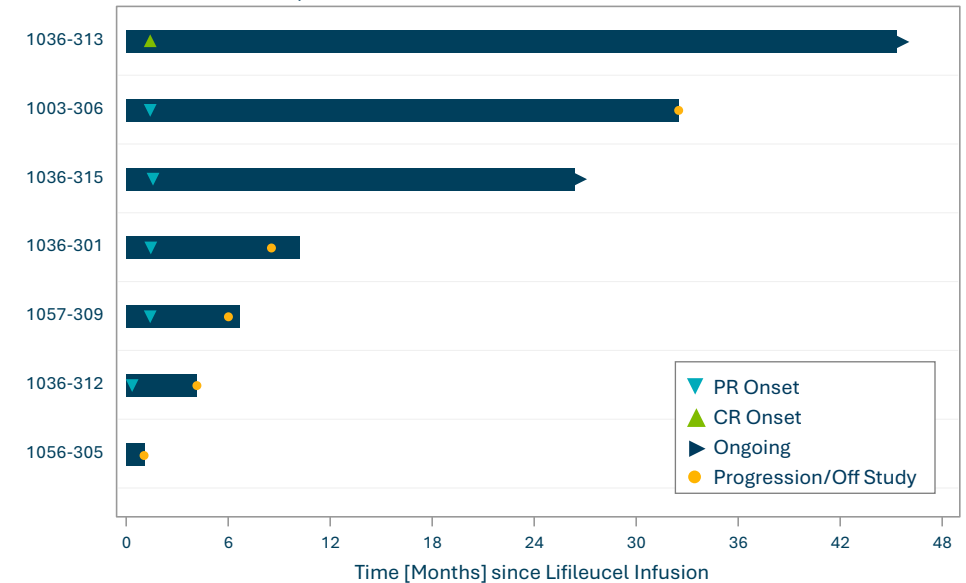
Best Percentage Change from Baseline in Target Lesion by RECIST v1.1

Non-Squamous *KRAS* Wild-Type+Ever Smoker



Durability of Response: *KRAS* Wild-Type+Ever Smoker

6 Confirmed Responders: 1 CR+5 PR



Note: Non-squamous, *KRAS*^{WT} + ever-smokers: n=7. ORR = [1 CR + 5 PR]/7 = 85.7%. All responses were confirmed and by RECIST v1.1. NE remains in the denominator.

Mean SOD = median lowest recorded percentage change from baseline. ORR includes 15/23 non-squamous patients with numeric change. All TVC levels included. Ever-smokers include former and current smokers. Exploratory subgroup analysis.

Abbreviations: BOR, best overall response; CR, complete response; DOR, duration of response; EGFR, epidermal growth factor receptor; KRAS, Kirsten rat sarcoma viral oncogene homolog; mo, months; NE, not evaluable; NSCLC, non-small cell lung cancer; ORR, objective response rate; PD, progressive disease; PR, partial response; SD, stable disease; SOD, sum of diameters; TVC, total viable cells.

KRAS Enriched Subgroup Comparison in Frontline NSCLC

Pembrolizumab Plus Lifileucel in Anti-PD-1 and Chemotherapy-Naïve Non-Squamous Metastatic NSCLC

Metric	KRAS Wild-Type	KRAS Mutant
Population [N = 23]	10	6
Confirmed ORR	60.0% [6/10]	33.3% [2/6]
Mean SOD Change	-57.6%	-4.5%
Median SOD Change	-69.7%	-12.4%

Note: Seven patients were not assessed for KRAS status.
Abbreviations: KRAS, Kirsten rat sarcoma viral oncogene homolog; mNSCLC, metastatic non-small cell lung cancer; NSCLC, non-small cell lung cancer; ORR, objective response rate; SOD, sum of diameters; uPR, unconfirmed partial response.



Thank You.

ADVANCING IMMUNO-ONCOLOGY