

# SSGJ-707, a PD-1/VEGF bispecific antibody, combined with platinum-based chemotherapy in first-line treatment of advanced non-small cell lung cancer: results from a phase 2 study

## Conclusions

- In this phase 2 study, SSGJ-707 combined with platinum-based chemotherapy demonstrated promising efficacy in first-line treatment of patients with advanced non-small cell lung cancer (NSCLC) independent of tumor histology and programmed death ligand 1 (PD-L1) expression
- At the 10 mg/kg every 3 weeks (Q3W) dose, optimized benefit-risk and higher efficacy were achieved with comparable safety to 5 mg/kg dose
- In nonsquamous NSCLC, the confirmed objective response rate (ORR) was 58.6% with SSGJ-707 10 mg/kg vs 38.7% with tislelizumab
- In squamous NSCLC, the confirmed ORR was 75.0% with SSGJ-707 in cohort A and 37.5% (paclitaxel; 43.8% pending partial response [PR] confirmation) and 69.2% (nab-paclitaxel) vs 47.6% with tislelizumab in cohort B
- SSGJ-707 combined with platinum-based chemotherapy demonstrated a manageable safety profile that was similar across histology
- Safety was expected, manageable, and consistent with the known safety profile of chemotherapy combined with programmed death 1 (PD-1) and angiogenesis inhibitors
- Grade ≥3 treatment-related adverse events (TRAEs) occurred in 39.0% of patients with SSGJ-707 10 mg/kg + chemotherapy vs 32.8% for tislelizumab + chemotherapy
- These results support initiation of the phase 3 pivotal trial of SSGJ-707 10 mg/kg Q3W combined with chemotherapy in first-line NSCLC regardless of histology and PD-L1 expression



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**References:** 1. Wu L, et al. *J Clin Oncol*. 2025;43 (suppl 16). abstract 8543. Data on file. 2. Zhang et al., *J Immunother Cancer*. 2024. Jun25;12(6):e0909034.

**Acknowledgments:** On behalf of the study team, the authors thank the patients and their families and caregivers for participating in this study, as well as all investigators, coordinators and research staff. This study was originally sponsored by Shenyang Sunshine Pharmaceuticals CO. Ltd, which was acquired by Pfizer in July 2025. Medical writing support was provided by Robyn Roth, PhD, of Nucleus Global and was funded by Pfizer

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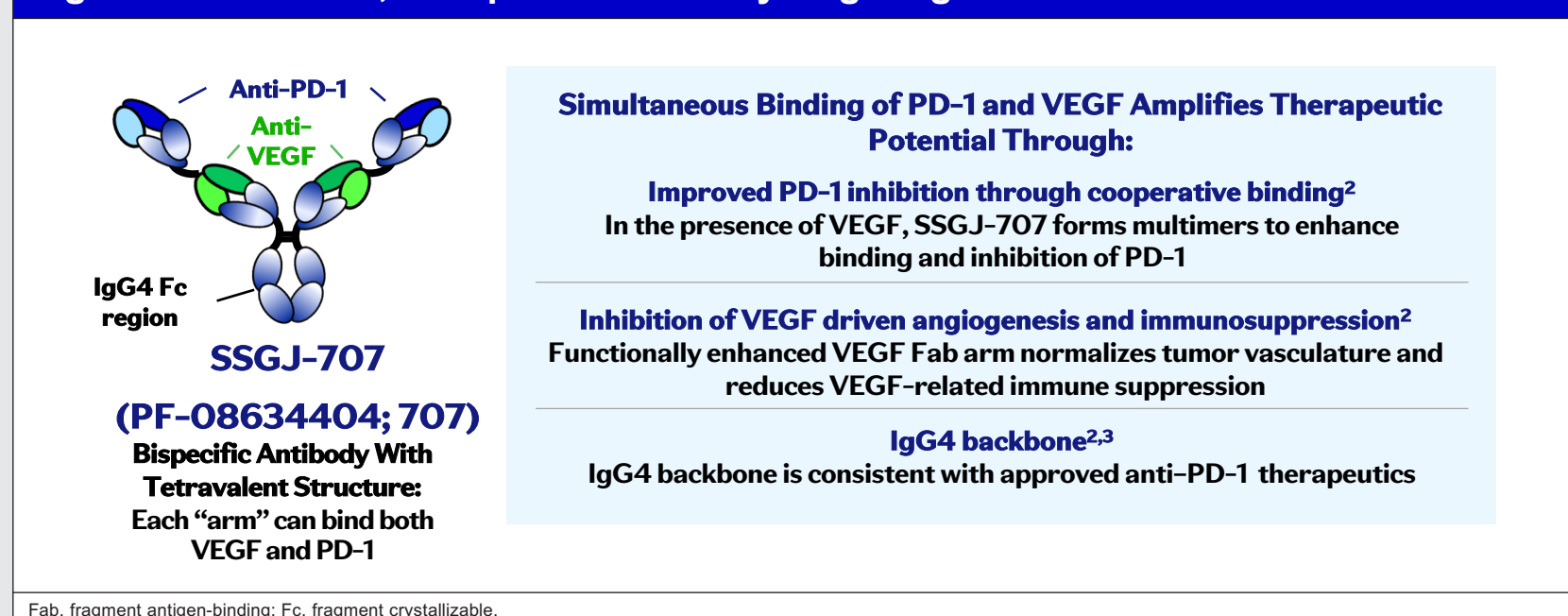
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## Background

- SSGJ-707 (PF-08634404) is a fully human immunoglobulin G4 bispecific antibody that targets PD-1 and vascular endothelial growth factor (VEGF) (Figure 1)
- SSGJ-707 monotherapy (10 mg/kg Q3W) demonstrated promising efficacy (confirmed ORR of 64.7%) and manageable safety (grade ≥3 TRAEs in 23.5%) in treatment-naïve patients with NSCLC tumor proportion score (TPS) ≥1%
- Here, we report safety and efficacy from the phase 2 study (NCT06412471) of SSGJ-707 combined with platinum-based chemotherapy in first-line NSCLC

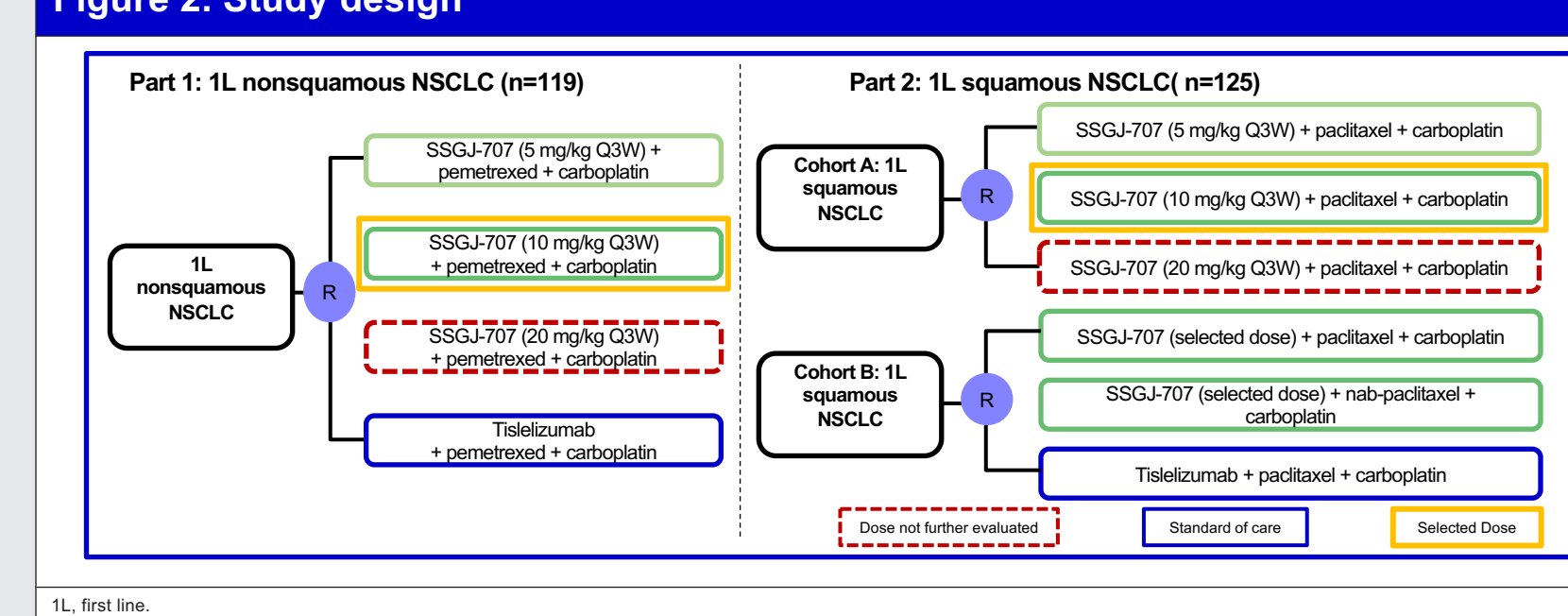
Figure 1. SSGJ-707, a bispecific antibody targeting PD-1 and VEGF



## Methods

- This is an open-label, multicenter, randomized phase 2 trial of SSGJ-707 or tislelizumab (anti-PD-1) combined with platinum-based chemotherapy for the treatment of patients with treatment-naïve advanced NSCLC (Figure 2)
- Primary objectives are to evaluate the safety, tolerability, and antitumor activity of different dosing regimens of SSGJ-707 combined with platinum-based chemotherapy
- Eligible patients have histologically confirmed treatment-naïve stage IIIB/C or stage IV NSCLC, regardless of PD-L1 expression
- Patients are excluded if they had *EGFR* or *ALK* alterations, *BRAF V600E* mutations, *MET* exon 14 skipping mutations, *RET* fusions, or *ROS1* fusions
- In part 1, patients with nonsquamous NSCLC received SSGJ-707 at 5/10/20 mg/kg or tislelizumab with carboplatin + pemetrexed
- In part 2 cohort A, patients with squamous NSCLC received SSGJ-707 at 5/10/20 mg/kg + carboplatin + paclitaxel
- Based on the selected dose from cohort A, part 2 cohort B evaluated SSGJ-707 10 mg/kg or tislelizumab with paclitaxel + carboplatin or SSGJ-707 10 mg/kg + nab-paclitaxel + carboplatin in squamous NSCLC
- Data cutoff for this analysis was July 4, 2025

Figure 2. Study design



## Results

- At the data cutoff, 119 patients with nonsquamous NSCLC and 125 with squamous NSCLC were enrolled in parts 1 and 2, respectively
- Across the treatment groups, majority were male and had former/current smoking status, and >40% of patients had TPS <1% NSCLC (Table 1)
- In nonsquamous and squamous NSCLC, confirmed ORRs with SSGJ-707 + chemotherapy were promising (Table 2)
- Follow-up time, no. of doses, and duration of response are shown in Table 3
- Responses were durable with SSGJ-707 + chemotherapy independent of tumor histology and PD-L1 expression (Figure 3 and Figure 4)

Table 1. Baseline demographics and clinical characteristics

	Part 1: Nonsquamous NSCLC (n=119)		Part 2: Squamous NSCLC (n=125)	
	SSGJ-707 (n=79)	Tislelizumab (n=40)	SSGJ-707 (n=98)	Tislelizumab (n=27)
Age ≥65 years, n (%)	36 (45.6)	20 (50.0)	54 (55.1)	13 (48.1)
Male, n (%)	54 (68.4)	33 (82.5)	83 (84.7)	25 (92.6)
ECOG PS of 1, n (%)	69 (87.3)	33 (82.5)	81 (82.7)	23 (85.2)
Smoking status, n (%)				
Former/current	53 (67.1)	30 (75.0)	81 (82.7)	21 (77.8)
Never	26 (32.9)	10 (25.0)	17 (17.3)	6 (22.2)
Clinical stage at study entry, n (%)				
Stage III	5 (6.3)	2 (5.0)	26 (26.5)	7 (25.9)
Stage IV	74 (93.7)	38 (95.0)	72 (73.5)	20 (74.1)
Liver metastases, n (%)	8 (10.1)	5 (12.5)	9 (9.2)	3 (11.1)
Brain metastases, n (%) <sup>a</sup>	18 (22.8)	8 (20.0)	8 (8.2)	4 (14.8)
PD-L1 expression level, n (%)				
TPS <1%	35 (44.3)	19 (47.5)	40 (40.8)	12 (44.4)
TPS 1%-49%	20 (25.3)	15 (37.5)	40 (40.8)	12 (44.4)
TPS ≥50%	24 (30.4)	6 (15.0)	18 (18.4)	3 (11.1)

ECOG PS, Eastern Cooperative Oncology Group performance status.  
<sup>a</sup>Previously treated stable brain metastases or asymptomatic, untreated brain metastases with long diameter ≤1.5 cm and without edema were allowed.

Table 2. Antitumor activity

	Part 1: Nonsquamous NSCLC			Part 2: Squamous NSCLC			
	SSGJ-707 5 mg/kg + carboplatin + pemetrexed (n=30)	SSGJ-707 10 mg/kg + carboplatin + pemetrexed (n=39)	Tislelizumab + carboplatin + pemetrexed (n=31)	Cohort A: SSGJ-707 5 mg/kg + carboplatin + paclitaxel (n=26)	Cohort B: SSGJ-707 10 mg/kg + carboplatin + paclitaxel (n=24)	Cohort C: SSGJ-707 10 mg/kg + carboplatin + nab-paclitaxel (n=16)	Cohort D: Tislelizumab + carboplatin + paclitaxel (n=21)
Confirmed ORR, % <sup>a</sup> (95% CI)	50.0 (31.3-66.7)	58.6 (38.9-76.5)	38.7 (21.8-57.8)	38.5 (20.2-59.4)	75.0 (53.3-90.2)	37.5 (15.2-64.6)	47.6 (38.6-90.9)
Best overall response, n (%)							
CR	0	0	0	0	1 (4.2)	0	0
PR	15 (50.0)	17 (58.6)	12 (38.7)	10 (38.5)	17 (70.8)	6 (37.5)	9 (69.2)
SD	14 (46.7)	11 (37.9)	14 (45.2)	16 (61.5)	5 (20.8)	10 (62.5)	4 (30.8)
PR pending <sup>b</sup>	1 (3.3)	3 (10.3)	3 (9.7)	4 (15.4)	0	7 (43.8)	1 (7.7)
PD	1 (3.3)	1 (3.4)	4 (12.9)	0	1 (4.2)	0	1 (4.8)
Not evaluable	0	0	1 (3.2)	0	0	0	0

CR, complete response; PD, progressive disease; PR, partial response; SD, stable disease.  
<sup>a</sup>Included all patients in the enrolled analysis set who received any amount of drug and who had ≥1 post-baseline tumor evaluation. 37 patients had no post-dose initial tumor assessment.  
<sup>b</sup>Patients with unconfirmed PRs that are awaiting confirmation and have the potential to become confirmed PRs.

Table 3. Follow-up time, no. of doses, and duration of response

	Part 1: Nonsquamous NSCLC			Part 2: Squamous NSCLC			
	SSGJ-707 5 mg/kg + carboplatin + pemetrexed (n=39)	SSGJ-707 10 mg/kg + carboplatin + pemetrexed (n=39)	Tislelizumab + carboplatin + pemetrexed (n=40)	Cohort A: SSGJ-707 5 mg/kg + carboplatin + paclitaxel (n=30)	Cohort B: SSGJ-707 10 mg/kg + carboplatin + paclitaxel (n=27)	Cohort C: SSGJ-707 10 mg/kg + carboplatin + nab-paclitaxel (n=25)	Cohort D: Tislelizumab + carboplatin + paclitaxel (n=27)
Follow-up time, median (95% CI) <sup>a</sup> , months	6.3 (5.3-8.0)	6.1 (4.6-7.0)	6.1 (4.0-7.2)	7.9 (7.2-8.2)	7.9 (7.0-8.7)	2.8 (2.4-4.3)	3.3 (2.3-4.2)
No. of doses administered, median (range) <sup>b</sup>	8.0 (1-15)	5.0 (1-14)	5.5 (1-12)	8.5 (1-14)	8.0 (1-16)	4.0 (1-9)	6.0 (2-11)
Duration of response, n	15	17	12	10	18	6	9
Median (95% CI) <sup>a</sup>	5.55 (3.09-NE)	6.87 (3.55-NE)	NE (2.63-NE)	NE (NE-NE)	8.25 (6.7-NE)	NE (2.79-NE)	NE (2.20-NE)

NE, not estimable.  
<sup>a</sup>Calculated with the Kaplan-Meier method to estimate the median and Brookmeyer and Crowley for 95% CIs.  
<sup>b</sup>For SSGJ-707 or tislelizumab.

Figure 3. Best changes from baseline in nonsquamous NSCLC

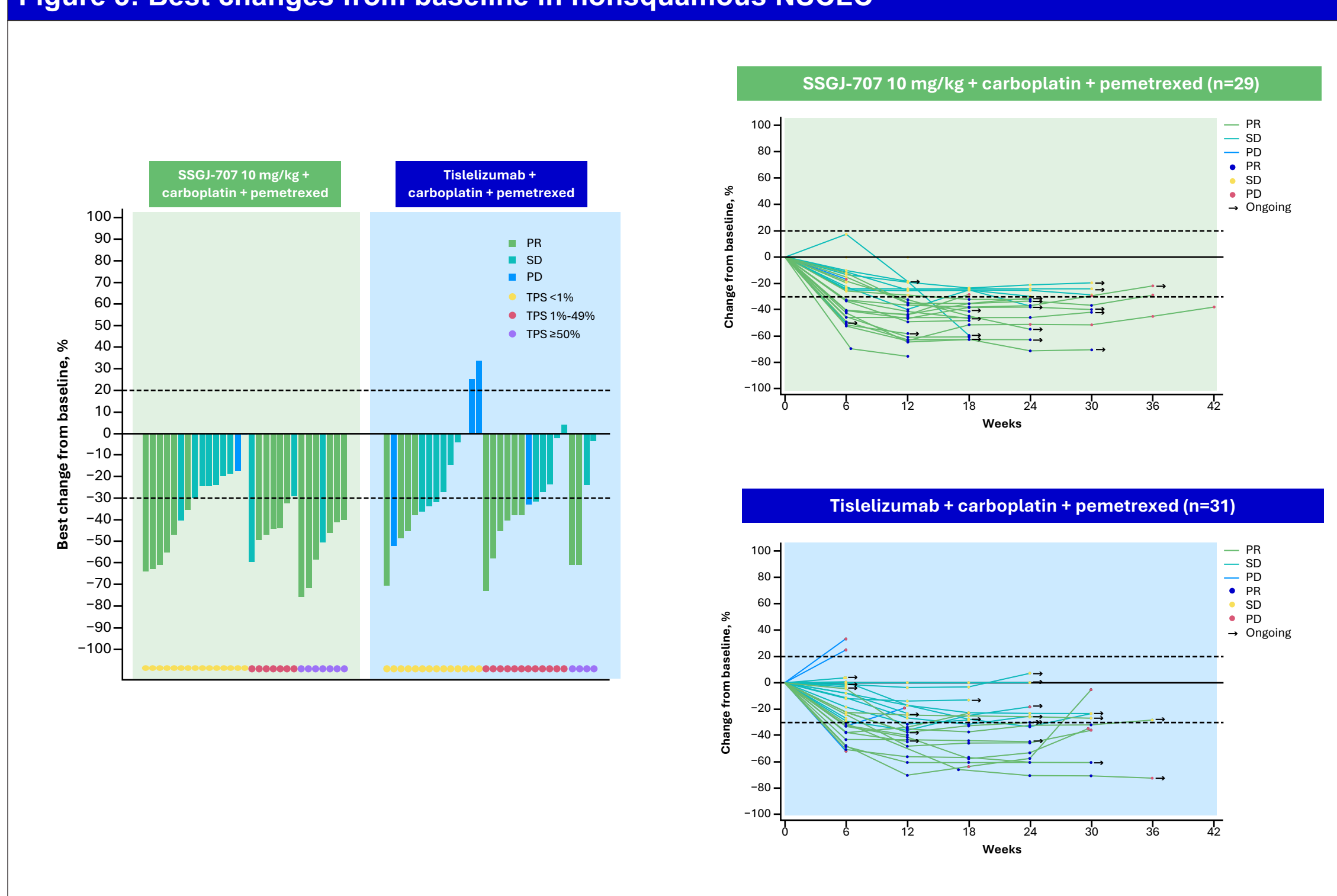
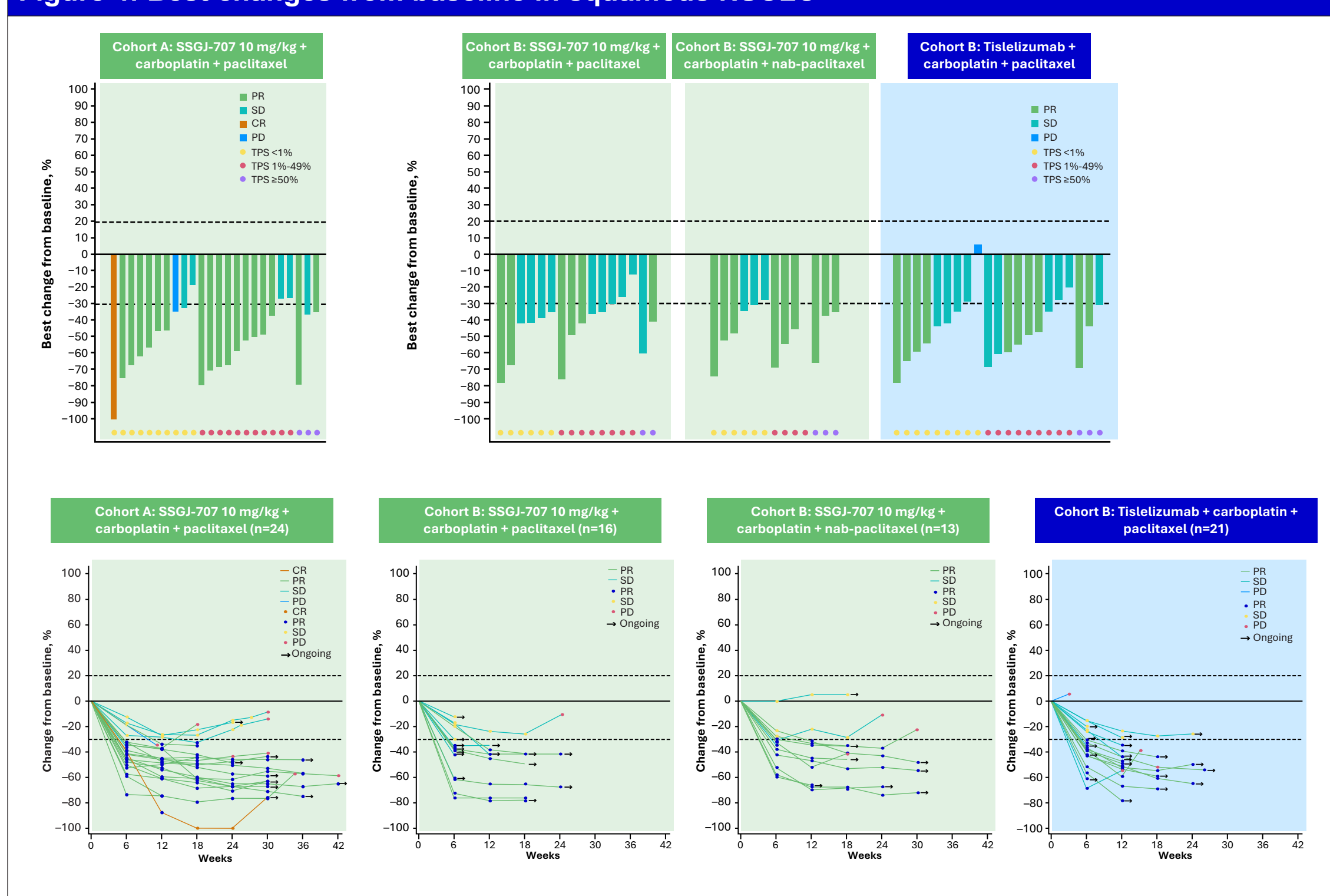


Figure 4. Best changes from baseline in squamous NSCLC



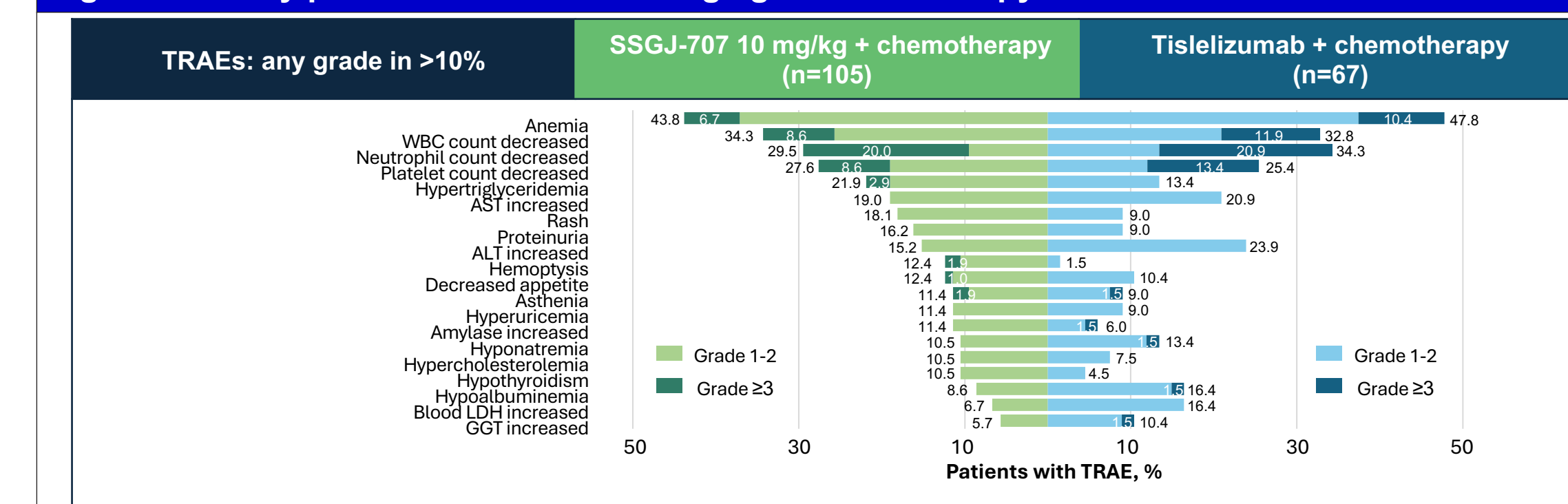
- Across parts 1 and 2, grade ≥3 TRAEs occurred in 39.0% of patients receiving SSGJ-707 10 mg/kg and 32.8% receiving tislelizumab; safety was consistent across nonsquamous and squamous NSCLC (Table 4)
- With SSGJ-707 10 mg/kg, the most common TRAEs were anemia (43.8%), decreased white blood cell count (34.3%), and decreased neutrophil count (29.5%) (Figure 5)
- With SSGJ-707 10 mg/kg, any-grade VEGF-related adverse events (AEs) occurred in 41.0% of patients; grade ≥3 occurred in 8.6% (Table 5)
- In nonsquamous and squamous NSCLC, any-grade hemorrhage occurred in 17.9% and 25.8% of patients, respectively; grade ≥3 occurred in 2.6% and 4.5%
- In nonsquamous and squamous NSCLC, any-grade hemoptysis occurred in 7.7% and 15.2% of patients, respectively; grade ≥3 occurred in 2.6% and 1.5%
- With SSGJ-707 10 mg/kg, immune-related AEs (irAEs) occurred in 14.3% of patients; grade ≥3 irAEs occurred in 4.8%

Table 4. Safety summary

TRAE, n (%) <sup>a</sup>	Part 1: Nonsquamous NSCLC and Part 2: Squamous NSCLC		Tislelizumab + chemotherapy (n=67)
	SSGJ-707 5 mg/kg + chemotherapy (n=69)	SSGJ-707 10 mg/kg + chemotherapy (n=105)	
Any grade	57 (82.6)	95 (90.5)	56 (83.6)
Grade ≥3	26 (37.7)	41 (39.0)	22 (32.8)
Grade 5 <sup>b</sup>	0	3 (2.9)	1 (1.5)
SAE	13 (18.8)	17 (16.2)	15 (22.4)
Leading to discontinuation	0	2 (1.9)	1 (1.5)
VEGF-related AEs, n (%) <sup>c</sup>			
Any grade	26 (37.7)	43 (41.0)	11 (16.4)
Grade ≥3	4 (5.8)	9 (8.6)	1 (1.5)
irAE, n (%) <sup>d</sup>			
Any grade	7 (10.1)	15 (14.3)	11 (16.4)
Grade ≥3	1 (1.4)	5 (4.8)	4 (6.0)

SAE, serious AE; TEAE, treatment-emergent AE.  
<sup>a</sup>No additional patients were included in this cohort based on safety and efficacy data at this dose from the monotherapy study.  
<sup>b</sup>Defined as a TEAE that was "related" to SSGJ-707, "most possibly related" to SSGJ-707, "possibly related" to SSGJ-707, or for which relationship to SSGJ-707 was missing.  
<sup>c</sup>Grade 5 TRAEs consisted of hemoptysis (n=2) and death of unknown cause (n=1) in SSGJ-707 group and death of unknown cause (n=1) in tislelizumab group.  
<sup>d</sup>Defined as gastrointestinal perforation and fistula, hemorrhage, thromboembolic event, hypertension, or proteinuria.  
<sup>e</sup>Defined as any TEAE that was potentially immune mediated and categorized as "related," "most possibly related," or "possibly related" to SSGJ-707 or tislelizumab.

Figure 5. Safety profile of SSGJ-707 10 mg/kg + chemotherapy



ALT, alanine aminotransferase; AST, aspartate aminotransferase; GGT, gamma-glutamyl transferase; LDH, lactate dehydrogenase; TRAE, treatment-related AE; WBC, white blood cell.

Table 5. VEGF- and immune-related AEs

AE Categories	SSGJ-707 10 mg/kg + chemotherapy (n=105)		Tislelizumab + chemotherapy (n=67)	
	Any grade	Grade ≥3	Any grade	Grade ≥3
<b>Any VEGF-related event (any grade in ≥5% of patients), n (%)</b>	43 (41.0)	9 (8.6)	11 (16.4)	1 (1.5)
Hemorrhage	24 (22.9)	4 (3.8)	4 (6.0)	0
Extrapulmonary hemorrhage	14 (13.3)	2 (1.9)	3 (4.5)	0
Epistaxis	9 (8.6)	1 (1.0)	0	0
Hemoptysis	13 (12.4)	2 (1.9) <sup>a</sup>	1 (1.5)	0
Proteinuria	18 (17.1)	0	6 (9.0)	0
Blood pressure elevation	10 (9.5)	5 (4.8)	2 (3.0)	1 (1.5)
<b>Any irAE<sup>b</sup> (any grade in ≥3% of patients or any grade ≥3 AE), n (%)</b>	15 (14.3)	5 (4.8)	11 (16.4)	4 (6.0)
Endocrine toxicity	8 (7.6)	0	4 (6.0)	0
Hypothyroidism	6 (5.7)	0	1 (1.5)	0
Hematologic toxicity	5 (4.8)	4 (3.8)	2 (3.0)	2 (3.0)
Decreased platelet count	5 (4.8)	4 (3.8)	2 (3.0)	2 (3.0)
Pulmonary toxicity	2 (1.9)	1 (1.0)	1 (1.5)	1 (1.5)
Immune-mediated lung disease	2 (1.9)	1 (1.0)	0	0
Interstitial lung disease	0	0	1 (1.5)	1 (1.5)
Dermatologic toxicity	1 (1.0)	0	4 (6.0)	0
Immune-mediated dermatitis	0	0	2 (3.0)	0
Rash	0	0	2 (3.0)	0

<sup>a</sup>Defined as gastrointestinal perforation and fistula, hemorrhage, thromboembolic event, hypertension, or proteinuria.  
<sup>b</sup>Two grade 5 treatment-related events of hemoptysis, 1 each in nonsquamous and squamous histology, occurred in patients with risk factors, eg, tumors with cavitation and necrosis, history of hemoptysis, thrombocytopenia.  
<sup>c</sup>Defined as any TEAE that was potentially immune mediated and categorized as "related," "most possibly related," or "possibly related" to SSGJ-707 or tislelizumab.