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Evaluation of the Safety and Efficacy of Ivonescimab in Combination with Chemotherapy as First-line (1L) Treatment for Triple-negative Breast Cancer (TNBC)

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DECLARATION OF INTERESTS

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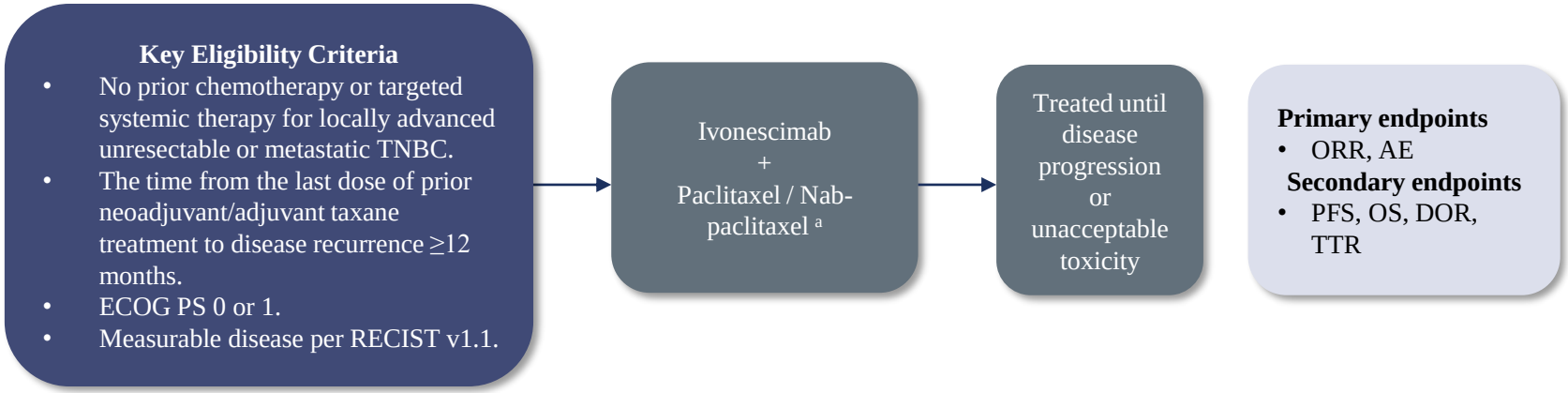
Study Design (NCT05227664)

- Ivonescimab, a tetrameric bispecific antibody targeting PD-1 and VEGF, has the potential to produce synergistic anti-tumor effects through both pathways via cooperative binding.
- This study aimed to evaluate the safety and efficacy of ivonescimab in combination with chemotherapy in locally advanced unresectable or metastatic TNBC.
- As of May 31, 2024, a total of 30 patients with locally advanced unresectable or metastatic TNBC were enrolled.
- Median follow-up was 10.12 months.



[a]Patients received ivonescimab at 20 mg/kg Q2W and paclitaxel at 90 mg/m^2 or nab-paclitaxel at 100 mg/m^2 on the 1st, 8^{th,} and 15th of each four-week treatment cycle

Abbreviation：TNBC, triple-negative breast cancer; ECOG PS, Eastern Cooperative Oncology Group performance status; RECIST, Response Evaluation Criteria in Solid Tumors；PFS, progression-free survival; OS, overall survival; ORR, overall response rate; AE, adverse event; DOR, duration of response; TTR, time to response. Data cutoff date: May 31, 2024.

Baseline Characteristics

- 53.3% of patients had ECOG of 1, 80% of patients had a PD-L1 combined positive score (CPS) <10, and 60% of patients had previously received taxane-based neoadjuvant or adjuvant therapy.

Characteristic	Overall (N=30)
Age, years	
median, range	54 (35, 73)
ECOG PS, n (%)	
0	14 (46.7)
1	16 (53.3)
Number of metastatic sites, n (%)	
0-3	14 (46.7)
≥4	15 (50.0)
Missing	1 (3.3)
Brain metastatic, n (%)	1 (3.3)
Liver metastatic, n (%)	7 (23.3)
Disease status, n (%)	
Initial diagnosed metastatic	11 (36.7)
Recurrent/metastatic	19 (63.3)

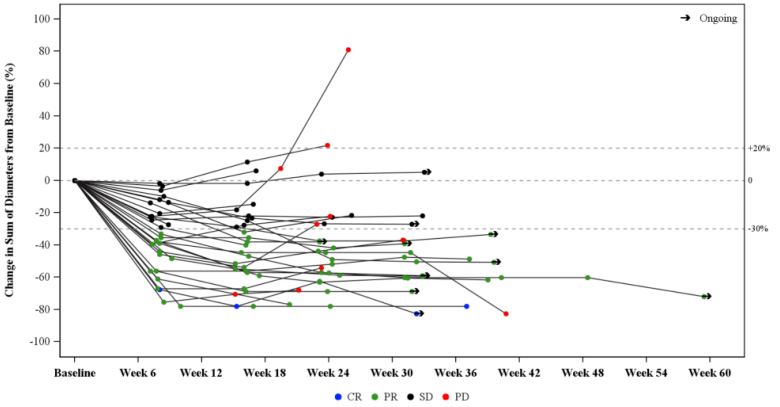
Characteristic	Overall (N=30)
Prior treatments for early-stage disease, n (%)	
CDK4/6 inhibitor	2 (6.7)
Prior taxane use	18 (60.0)
Endocrinotherapy	6 (20.0)
Targeted therapy	1 (3.3)
PD-L1 expression (CPS)[a]	
PD-L1 CPS ≥10	6 (20.0)
PD-L1 CPS <10	24 (80.0)
PD-L1 CPS <1	16 (53.3)

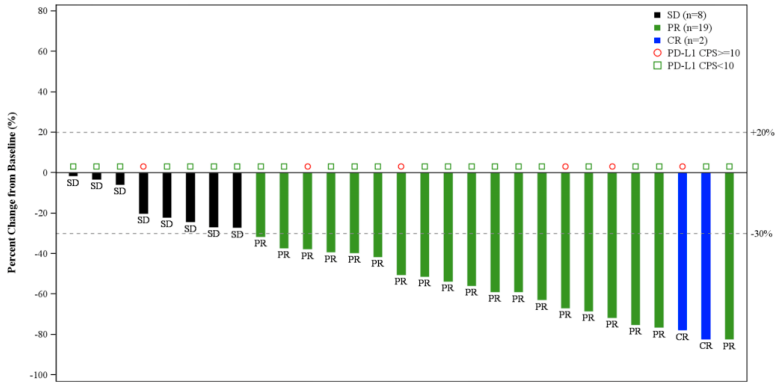
[a]PD-L1 assessed at a central laboratory using the PD-L1 IHC 22C3 pharmDx assay. Data cutoff date: May 31, 2024

Efficacy Summary

	All patients (N=30)
Best Overall Response (BOR), n (%)	
n	29 [a]
CR	2 (6.9)
PR	19 (65.5)
SD	8 (27.6)
Objective Response Rate (ORR), n (%)	21 (72.4)
Disease Control Rate (DCR), n (%)	29 (100)
DOR (months)	
Median (95%CI)	7.49 (3.91, NE)
6-month DOR Rate, % (95%CI)	68.9 (40.2, 85.9)
PFS	
Median (95%CI), month	9.30 (6.24, NE)
6-month PFS rate, % (95%CI)	73.3 (51.8, 86.3)

[a] Out of the 30 patients enrolled，29 patients had at least one post-baseline tumor assessment.
Abbreviation: CR, complete response; PR, partial response; SD, stable response; CI, confidence interval; NE, not estimation; PFS, progression-free survival.
Data cutoff date: May 31, 2024.





Efficacy in Key Subgroups

	PD-L1 CPS≥10 (N=6)	PD-L1 CPS＜10 (N=24)	PD-L1 CPS＜1 (N=16)
Best Overall Response (BOR), n (%)			
n	6	23[a]	15[a]
CR	1 (16.7)	1 (4.3)	0
PR	4 (66.7)	15 (65.2)	13 (86.7)
SD	1 (16.7)	7 (30.4)	2 (13.3)
Objective Response Rate (ORR), n (%)	5 (83.3)	16 (69.6)	13 (86.7)
Disease Control Rate (DCR), n (%)	6 (100)	23 (100)	15 (100)
DOR (months)			
Median (95%CI)	NR (3.58, NE)	7.49 (3.91, NE)	7.49 (3.45, NE)
6-month DOR Rate, % (95%CI)	66.7 (5.4, 94.5)	68.4 (35.7, 87.0)	61.9 (27.0, 83.9)
PFS			
Median (95%CI), month	NR (5.36, NE)	9.30 (5.55, NE)	9.30 (5.26, NE)
6-month PFS rate, % (95%CI)	80.0 (20.4, 96.9)	71.2 (46.6, 86.0)	70.0 (38.2, 87.6)

[a]The 1 patient who did not have a post-baseline tumor assessment had a PD-L1 CPS expression of 0.
Abbreviation: CR, complete response; PR, partial response; SD, stable response; CI, confidence interval; NR, not reach; NE, not estimation.
Data cutoff date: May 31, 2024.

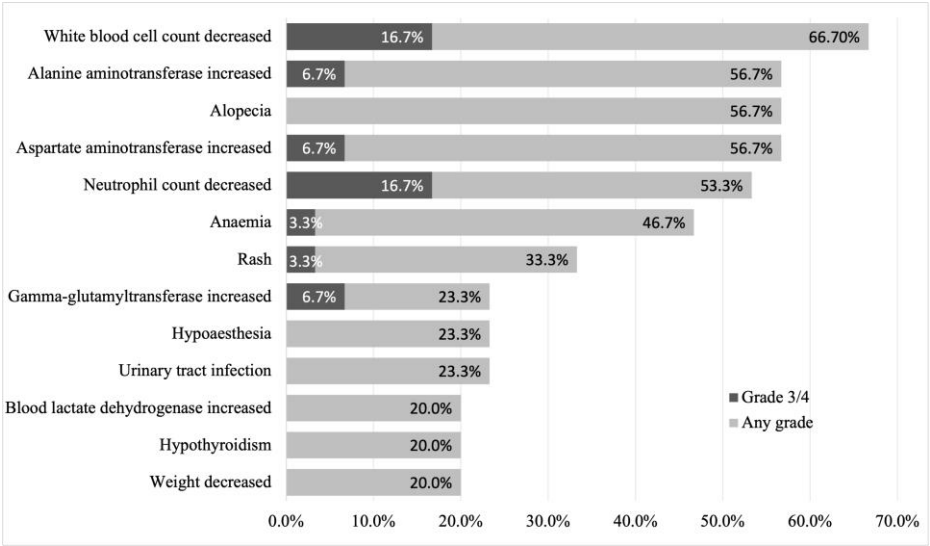
Safety Summary

- The common TRAEs were hematologic abnormalities and liver enzyme abnormalities, with the majority being grade 1-2.
- There were no TRAEs that led to permanent treatment discontinuation or death.

Summary of Treatment-related Adverse Events

AE Category	All patients (N=30)
TRAEs	30 (100)
TRAEs with Grade ≥3	16 (53.3)
TRSAE	9 (30.0)
TRAEs Leading to Permanently Discontinued	0
TRAEs Leading to Death	0

Summary of TRAEs with an Incidence Rate of ≥20%



Percent of Patients Experiencing TRAE

Abbreviation: TRAE: treatment-related adverse event; TRSAE: Serious TRAE;
Data cutoff date: May 31, 2024.

Conclusions

- Ivonescimab in combination with chemotherapy showed promising anti-tumor activity as 1L treatment of TNBC.
  - ORR was 72.4%, DCR was 100%, median PFS was 9.3 month (6.24, NE).
  - In CPS<10 population, ORR was 69.6%, median PFS was 9.3 month (5.55, NE).
- Ivonescimab in combination with chemotherapy demonstrated a manageable safety profile in locally advanced unresectable or metastatic TNBC.
  - The most common TRAEs were hematologic abnormalities and liver enzyme abnormalities, with the majority being grade 1-2.
  - In this study, there were no TRAEs that led to permanent treatment discontinuation or death.

Presented by: Dr. Xiaojia Wang