Phase 1 safety, efficacy, pharmacokinetics (PK) and pharmacodynamics (PD) of pasritamig in Asian population with metastatic castration-resistant prostate cancer (mCRPC)

Junyong Dai,[1] Nan Liu,[1] Yonghong Li,[2] Zhixian Yu,[3] Shudong Zhang,[4] Takashi Kawahara,[5] Hiroji Uemura,[5] Chihiro Kondoh,[6] Daria Gaut,[7] Regina Brown,[8] Leanne Cartee,[8] Yanmei Liu,[9] Junya Aoyama,[10] Haocheng Ma,[9] Ei Fujikawa,[10] Debopriya Ghosh,[11] Kristin Shotts,[8] Ruchi Chaudhary,[8] Siew Kee Low,[12] Nobuaki Matsubara[6]

[1]Chongqing University Cancer Hospital, Chongqing, China; [2]Sun Yat-sen University Cancer Center, Guangzhou, China; [3]The First Affiliated Hospital of Wenzhou Medical University, Wenzhou, China; [4]Peking University Third Hospital, Beijing, China; [5]Yokohama City University Medical Center, Yokohama, Japan; [6]National Cancer Center Hospital East, Chiba, Japan; [7]Johnson & Johnson, Los Angeles, CA, USA; [8]Johnson & Johnson, Spring House, PA, USA; [9]Johnson & Johnson, Beijing, China; [10]Johnson & Johnson, Tokyo, Japan; [11]Johnson & Johnson, Raritan, NJ, USA; [12]Johnson & Johnson, Shanghai, China

Key Takeaway

These results highlight the potential for PAS as a first-in-class KLK2xCD3 T cell engager therapy for mCRPC and support inclusion of Asian patients in ongoing global phase 3 trials

Conclusions

The safety, efficacy, pharmacokinetic, and pharmacodynamic profile of PAS in patients with mCRPC in APAC is broadly consistent with its profile previously reported in the global mCRPC population

Similar to the global (US and EU) study population, the APAC cohort had <10% CRS (all Grade 1) at the RP2D of PAS with a Q6W schedule

Please scan QR code

Poster

https://www.congresshub.com/Oncology/GU 2026/Pasritamig/Liu

Copies of this presentation obtained through Quick Response (QR) Codes are for personal use only and may not be reproduced without permission from ASCO® or the author of this presentation.

Acknowledgments

We are grateful to the patients, their families/caregivers, and the clinical trial teams for their contribution to this study. The authors would like to acknowledge Malhar Khatu for providing statistical analyses, Pharavee Jaiprasart for pharmacokinetic analysis, and Xuesong Lyu for biomarker analysis. Medical writing support was provided by Patricia McChesney, PhD, CMPP, (System One) and Jennifer Han, MS, CMPP (Johnson & Johnson) under the direction of the authors and in accordance with Good Publication Practice guidelines (*Ann Intern Med* 2022;175:1398-1304); funded by Johnson & Johnson.

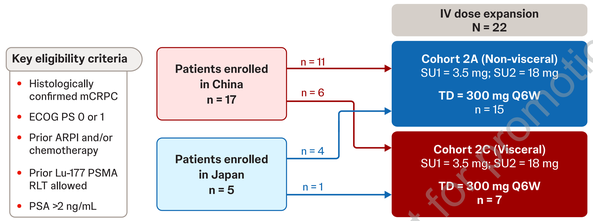
Disclosures

NL declares no known competing financial interests or personal relationships that could have appeared to influence the work reported in this presentation.
This study was funded by Johnson & Johnson.

Introduction

- Human kallikrein2 (encoded by the *KLK2* gene and hereafter referred to as KLK2) is a novel target expressed on prostate cancer cells and has limited expression in normal tissues[1]
- Pasritamig (PAS) is a first-in-class bispecific T cell engager that simultaneously binds KLK2 on prostate cancer cells and CD3 receptor complexes on T cells, leading to T cell–directed killing of KLK2-expressing prostate cancer cells
- A tolerable safety profile and promising anti-tumor activity for PAS was reported for US and EU patients with metastatic castration-resistant prostate cancer (mCRPC)[2,3]
- We report results for the Asia Pacific (APAC) population from the first-in-human study (NCT04898634) evaluating PAS in patients with mCRPC

Figure 1: Global, phase 1, first-in-human, dose-escalation and dose-expansion study



ARPI, androgen receptor pathway inhibitor; ECOG PS; Eastern Cooperative Oncology Group performance status; IV, intravenous; Lu-177 PSMA RLT, lutetium Lu 177 vipivotide tetraxetan prostate-specific membrane antigen radioligand therapy; mCRPC, metastatic castration-resistant prostate cancer; PSA, prostate-specific antigen; Q6W, every 6 weeks; rPFS, radiographic progression-free survival; SU, step-up dose; TD, treatment dose.

Methods

- The primary study objective was safety
- Secondary study objectives included preliminary antitumor activity, PK, and PD
- Two cohorts were evaluated in APAC (**Figure 1**):
  - Cohort 2A: mCRPC metastatic to bone, lymph node, or both without evidence of metastasis to visceral organs
  - Cohort 2C: mCRPC with lesions in visceral tissue with or without bone or lymph node metastases
- PAS was administered outpatient at a target dose of 300 mg intravenous (IV) every 6 weeks with two step-up doses of 3.5 mg IV on cycle 1 day 1 and 18 mg IV on cycle 1 day 8
  - Premedication with acetaminophen, diphenhydramine and dexamethasone (16 mg) were implemented for step-up and first treatment doses

Results

Baseline Characteristics

- As of December 15, 2025, 22 participants in APAC (17 Chinese, 5 Japanese) received at least 1 PAS dose
- All APAC participants had prior androgen receptor pathway inhibitor (ARPI; **Table 1**)
- Baseline disease characteristics for APAC participants are generally consistent with the previously reported all-treated global population except for
  - A higher proportion of APAC participants received prior taxane (95.5% vs 78.2%) and a lower proportion received prior radioligand therapy (lutetium Lu 177 vipivotide tetraxetan 4.5% vs 17.8%) compared with the global population[3]
  - APAC participants, compared with the global population, had higher median prostate-specific antigen (PSA) at baseline (127.5 vs 74.8 ng/mL) and a higher proportion had visceral metastasis (31.8% vs 24.3%)[3]

Table 1: Baseline characteristics

	China (n=17)	Japan (n=5)	APAC (N=22)
Age, years	69 [55, 85]	69 [52, 85]	69 [52, 85]
Baseline PSA, ng/mL	127.0 [6.8, 1973]	128.0 [8.8, 583]	127.5 [6.8, 1973]
Disease involvement			
Bone	14 (82.4)	5 (100)	19 (86.4)
Lymph node	9 (52.9)	0	9 (40.9)
Visceral	6 (35.3)	1 (20.0)	7 (31.8)
Liver	3 (17.6)	1 (20.0)	4 (18.2)
Number of prior therapies	3.0 [2, 5]	3.0 [2, 6]	3.0 [2, 6]
Prior therapies[a]			
ARPI	17 (100)	5 (100)	22 (100)
Taxane chemotherapy	17 (100)	4 (80)	21 (95.5)
1 regimen	12 (70.6)	3 (60.0)	15 (68.2)
>1 regimen	5 (29.4)	1 (20.0)	6 (27.3)

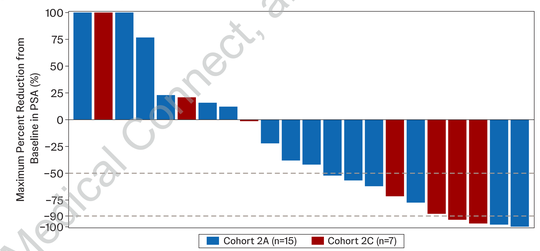
Data presented as n (%) or median [range].
[a]Additionally, 1 participant in China was previously treated with lutetium Lu 177 vipivotide tetraxetan prostate-specific membrane antigen radioligand therapy before the study.
APAC, Asia Pacific; ARPI, androgen receptor pathway inhibitor; PSA, prostate-specific antigen.

- The median duration of therapy including step-up dosing was 5.98 [range: 0.5, 11.6] months, with 7 (31.8%) participants ongoing study treatment as of data cutoff

Efficacy

- Unconfirmed PSA50 response at any time was 45.5% (10/22), and the confirmed PSA50 was 31.8% (7/22), including 4 confirmed responders with visceral metastasis (**Figure 2**)
- With a median follow-up of 7.8 months in APAC, median overall radiographic progression-free survival (rPFS) was 8.31 (95% CI: 3.75, not estimable [NE]) months with 68.2% (15/22) of participants still being followed
  - Median rPFS was 8.31 (95% CI: 3.75, NE) months in Cohort 2A and 4.83 (95% CI: 1.18, NE) months in Cohort 2C

Figure 2: Maximum percent reduction from baseline of PSA



Reference lines represent 50% and 90% decrease. Increase >100% is set to 100%.

Pharmacokinetics and Pharmacodynamics

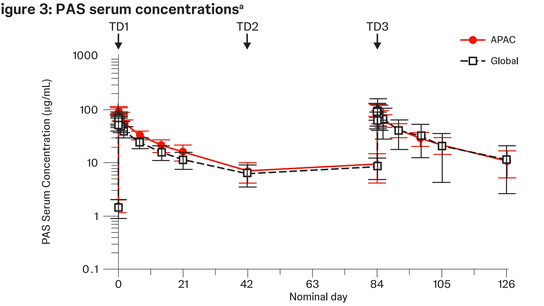
- PAS PK in APAC participants were linear, with a mean half-life of 14 days and was generally consistent with the global population (**Table 2** and **Figure 3**)
- PAS PD were similar between APAC participants and the global population
  - Increases in interferon gamma (IFNγ) serum levels were observed following PAS treatment, indicating peripheral T cell activation (**Figure 4**)

Table 2: Pharmacokinetics (PAS dose 1)

	C_{max} (µg/mL)	T_{max} (h)	AUC_{42days} (h*µg/mL)	C_{trough} (µg/mL)	$T_{1/2}$ (days)
APAC (N=22)	106 (17.7)	2 [2, 8]	23790 (5011)[a]	7.16 (3.04)[a]	13.8 (4.3)
Global (N=33)	74.7 (15.7)	2 [2, 168]	17717 (4131)[b]	6.34 (2.77)[b]	16.5 (5.9)[c]

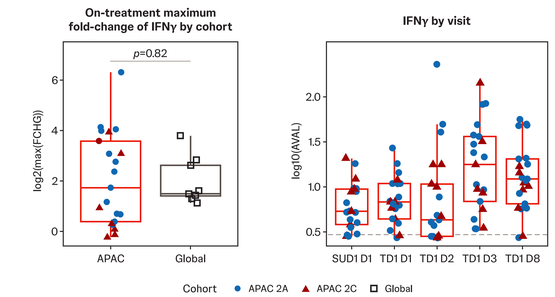
Data shown as mean (SD) for all parameters, except for T_{max} shown as median [range].
[a]n=16, [b]n=27, [c]n=31.
AUC, area under the curve; C_{max}, maximum concentration; C_{trough}, trough concentration; $T_{1/2}$, half-life; T_{max}, time to peak plasma concentration.

Figure 3: PAS serum concentrations[a]



[a]Profile of mean observed PAS serum concentrations (plot with standard deviation error bars; semilogarithmic plots).
APAC, Asia Pacific; TD, target dose.

Figure 4: Interferon gamma (IFNγ) levels



IFNγ was quantified using the Meso Scale Discovery V-PLEX Proinflammatory panel. Serum samples were collected at baseline (pre-SU1); pre-TD1; and at 2, 3, and 8 days post-TD1 (TD1 D2, TD1 D3, TD1 D8).
APAC, Asia Pacific; AVAL, analysis value (concentration); D, day; FCHG, fold change over baseline; SUD, step-up dose; TD, target dose.

Safety

- No dose-limiting toxicities, treatment-related deaths, or treatment-related adverse events (TRAEs) leading to treatment discontinuation were reported in the APAC cohort
- 8 of 9 reported Grade ≥3 TRAEs were cytopenias (6 lymphopenia and 2 anemia in 7 APAC participants), most (5/7) of these participants had Grade 2 cytopenia at screening or baseline (**Table 3**). The other Grade 3 TRAE was dermatitis, which recovered in 22 days with steroid treatment
- 3 treatment-related serious AEs were reported in the APAC cohort: 2 Grade 1 cytokine release syndrome (CRS, 9.1% [vs 8.9% previously reported in the global safety RP2D population[3]]) and 1 Grade 3 dermatitis; both CRS events resolved within ≤5 days (1 with tocilizumab after not responding to acetaminophen)
- No infusion-related reactions or immune effector cell-associated neurotoxicity syndrome (ICANS) were observed in APAC participants

Table 3: Safety

Participants with	APAC (N=22)
≥1 TRAE	16 (72.7)
CRS	2 (9.1)[a]
Grade ≥3 TRAE	8 (36.4)
Most common Grade ≥3 TRAEs (≥5%)	
Lymphopenia	6 (27.3)
Anemia	2 (9.1)
Dermatitis	1 (4.5)
TRAE leading to discontinuation	0
TRSAE	3 (13.6)

Data presented as n (%).
[a]Both events were Grade 1, and no Grade ≥2 CRS were reported.
APAC, Asia Pacific; CRS, cytokine release syndrome; TRAE, treatment-related adverse event; TRSAE, treatment-related serious adverse event.

References
1. Shen F, et al. *Clin Cancer Res* 2025;31(21):4543-4556. 2. Baldini C, et al. *J Clin Oncol*.2025;43(16 suppl):5017. 3. Stein MN, et al. *J Clin Oncol* 2025;43(22):2515-2526.

Prostate Cancer

This material is contributed for scientific purposes on J&J Medical Connect, and is not for promotional use

Presented by N Liu at the American Society of Clinical Oncology – Genitourinary Cancers Symposium; February 26-28, 2026; San Francisco, CA, USA