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A Phase III randomized, open-label study of pasritamig (JNJ-78278343), a T-cell-redirecting agent targeting human kallikrein 2, with docetaxel versus docetaxel for metastatic castration-resistant prostate cancer

Submission date 01/11/2025	**Recruitment status** Recruiting	[X] Prospectively registered [_] Protocol [_] Statistical analysis plan [_] Results [_] Individual participant data [X] Record updated in last year
Registration date 09/01/2026	**Overall study status** Ongoing	
Last Edited 09/01/2026	**Condition category** Cancer	

Plain English summary of protocol

Background and study aims

Metastatic castrate-resistant prostate cancer (mCRPC) is a cancer that forms in tissues of the male reproductive gland found below the bladder (prostate) and keeps growing despite low levels of male hormones. Although treatment options are available, mCRPC cannot be cured and still causes serious health problems and can lead to death. Pasritamig (JNJ-78278343) is a bispecific antibody (protein that recognizes and attaches to two different targets) that targets human kallikrein 2 protein on tumour cells and cluster of differentiation three protein on T-cells (a key cell of the immune system). This activates T-cells, which damage tumour cells and stop them from growing. Docetaxel is a standard of care (widely accepted) treatment option for advanced prostate cancer (cancer that has spread to other parts of the body). In this study, researchers want to assess whether the combination treatment of pasritamig and docetaxel prolongs radiographic Progression-Free Survival (rPFS) when compared to treatment with docetaxel alone.

Who can participate?

Patients aged 18 years and over with metastatic castration-resistant prostate cancer whose disease has worsened despite previous treatment with ARPI therapy and who have not yet received chemotherapy

What does the study involve?

The study consists of:

1. Screening phase (up to 28 days)
2. Treatment phase (up to last dose of study treatment): Participants will be randomly (by chance) assigned to either of the following arms:

a. Pasritamig and docetaxel

b. Docetaxel

3. End of trial (EOT) visit (within 42 days of last dose of study drug or start of next anticancer therapy)
4. Follow-up phase:
a. Post-treatment follow-up (every 6 weeks): For participants whose disease has not worsened after the treatment or who have not started any next anticancer therapy.
b. Survival follow-up (every 12 weeks until death, loss to follow-up, or study withdrawal, whichever occurs first): For participants whose disease has worsened after the treatment.
Safety assessments include physical examinations, vital signs, adverse events and laboratory assessments. The overall duration of the study is around 3 years and 5 months.

What are the possible benefits and risks of participating?
There is no established benefit to participants of this study. Based on scientific theory, taking pasritamig and docetaxel combination treatment may improve mCRPC. However, this cannot be guaranteed because pasritamig and docetaxel combination is still under investigation as a treatment and it is not known whether pasritamig and docetaxel will work.
In addition, if participants are assigned to the comparator treatment group they will not receive pasritamig and will receive docetaxel along with prednisone during this study. This is an active standard of care option from mCRPC.
Participants may experience some benefit from participation in the study that is not due to receiving study drug but due to regular visits and assessments monitoring overall health. Participation may help other people with mCRPC in the future.
Participants may have side effects from the drugs or procedures used in this study that may be mild to severe and even life-threatening, and they can vary from person to person. For participants with residual prostate or local tumour tissue, inflammation in prostate (prostatitis) is possible after getting pasritamig. The most common, known risks are getting symptoms such as inflammation that may occur after treatment with some types of immunotherapy (cytokine release syndrome), neurological side effects that may include headaches, changes in mental status, or seizures, and systemic administration-related reaction or infusion related reactions, which can include chills, low blood pressure, or feeling short of breath after the drug infusion. The most common risks after getting docetaxel may be bone marrow suppression in which it doesn't produce enough blood cells, damage to the liver, unusual responses or symptoms of nervous system, disorders of stomach and intestine such as vomiting and diarrhea, infections, muscle aches and pain, shortness of breath, physical weakness or lack of energy, loss of taste and appetite, pain, fluid retention, rare, severe, and often life-threatening skin reactions to drugs, hair loss from any part of the body, skin reactions, nail disorders, side effects on the developing embryo and fetus and infusion related reactions.
There are other, less frequent risks. The participant information sheet and informed consent form, which will be signed by every participant agreeing to participate in the study, includes a detailed section outlining the known risks to participating in the study.
Not all possible side effects and risks related to pasritamig and docetaxel combination treatment are known at this moment. During the study, the sponsor may learn new information about pasritamig and docetaxel combination treatment. The study doctor will tell participants as soon as possible about any new information that might make them change their mind about being in the study, such as new risks.
To minimise the risk associated with taking part in the study, participants are frequently reviewed for any side effects and other medical events. Participants are educated to report any such events to their study doctor who will provide appropriate medical care. Any serious side effects that are reported to the sponsor are thoroughly reviewed by a specialist drug safety team.
There are no costs to participants to be in the study. The sponsor will pay for the study drug and tests that are part of the study. The participant will receive reasonable reimbursement for study-related costs (e.g., travel/parking costs).

Where is the study run from?
Janssen-Cilag International NV (Netherlands)

When is the study starting and how long is it expected to run for?
October 2025 to August 2030

Who is funding the study?
Janssen-Cilag International NV (Netherlands)

Who is the main contact?
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Public

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Integrated Research Application System (IRAS)
1012816

Protocol serial number
78278343PCR3003

Study information

Scientific Title
A Phase III randomized, open-label study of pasritamig (JNJ-78278343), a T-cell-redirecting agent targeting human kallikrein 2, with docetaxel versus docetaxel for metastatic castration-resistant prostate cancer

Study objectives
The primary objective of this trial is to determine whether treatment with pasritamig and docetaxel prolongs radiographic progression-free survival (rPFS) compared with docetaxel alone in participants with metastatic castrate-resistant prostate cancer (mCRPC) who have progressed on at least one androgen receptor pathway inhibition (ARPI).

The key secondary objective for this trial is to demonstrate additional clinical benefit for participants with metastatic castrate-resistant prostate cancer (mCRPC) who have progressed on at least one androgen receptor pathway inhibition (ARPI) treated with pasritamig and docetaxel compared with docetaxel alone.

The other secondary objectives are:
1. To further compare the clinical benefit of combination pasritamig and docetaxel to docetaxel alone.
2. To characterise the safety profile of pasritamig and docetaxel.
3. To evaluate the effect of treatment of pasritamig and docetaxel on Health-Related Quality of life (HRQoL) and participant experience.

The exploratory objectives for this trial are:
1. To assess the pharmacokinetic(s) (PK) and immunogenicity of pasritamig.
2. To investigate biomarkers predictive of clinical response or resistance to pasritamig.

Ethics approval required
Ethics approval required

Ethics approval(s)
approved 05/01/2026, South Central - Oxford A Research Ethics Committee (Stratford, London, E20 1JQ, United Kingdom; +44 (0)207 104 8241; oxforda.rec@hra.nhs.uk), ref: 25/SC/0374

Study design
Open randomized controlled parallel-group trial

Primary study design
Interventional

Study type(s)
Efficacy, Safety

Health condition(s) or problem(s) studied
Metastatic castration-resistant prostate cancer (mCRPC)

Interventions
Pasritamig + Docetaxel Arm:
Participants will receive two step-up doses of pasritamig followed by the target dose every 6 weeks by IV administration. Docetaxel will be administered every 3 weeks up to a maximum of 10 doses
Participants continue to receive pasritamig after docetaxel completion/discontinuation until disease progression and may continue to receive pasritamig per the investigator's discretion.
Pasritamig: Bi-specific T-cell engager antibody. Two step-up doses (3.5 mg and 18 mg) followed by 300 mg target dose 6-weekly by IV administration.
Docetaxel: Taxane chemotherapy. Dose of 75 mg/m2 once every 3 weeks for up to 10 doses by IV administration.

Docetaxel Arm:
Docetaxel will be administered every 3 weeks up to a maximum of 10 doses.
Docetaxel: Taxane chemotherapy. Dose of 75 mg/m2 once every 3 weeks for up to 10 doses by IV administration.
Prednisolone: 5 mg orally, twice a day

Intervention Type
Drug

Phase
Phase III

Drug/device/biological/vaccine name(s)
Pasritamig (JNJ-78278343), docetaxel, prednisolone

Primary outcome(s)
Radiographic progression-free survival (rPFS): blinded independent central review (BICR) assessed per Response Evaluation Criteria in Solid Tumours (RECIST) v1.1 and Prostate Cancer Working Group 3 (PCWG3). The primary endpoint is defined as the time from the date of randomisation to the first date of radiographic disease progression, or death due to any cause, whichever occurs first.

Key secondary outcome(s))
Key:
1. Overall survival (OS): time from the date of randomisation to the date of death due to any cause
2. Time to symptomatic progression (TSP): time from the date of randomisation to the date of first occurrence of any of the protocol-specified criteria
3. Time to subsequent therapy (TST): time from randomisation to the initiation of any

subsequent systemic anticancer therapy
4. Time to skeletal-related event (TSRE): time from the date of randomisation to the date of first occurrence of any of the protocol-specified criteria

Other:
1. Objective response rate: the proportion of participants who have measurable disease at baseline and have complete response (CR) or partial response (PR) by objective radiographic disease evaluation per RECIST v1.1, and no bone progression per PCWG3 as determined by the BICR, assessed every 8 weeks until disease progression or death.
2. Duration of response (DOR): DOR will be calculated among responders (PR or better) from the date of initial documentation of a response (PR or better) to the date of first documented evidence of progressive disease, as defined in the PCWG3 or RECIST version 1.1 response criteria, or death due to any cause, whichever occurs first.
3. Time to prostate-specific antigen (PSA) progression: time from randomization to the first date of documented PSA progression per PCWG3 criteria.
4. PSA response; reported as PSA50 and PSA90 response: the proportion of participants with a reduction in blood concentration of PSA (ng/mL) to 50%/90% from baseline, confirmed by a second value at least 3 weeks apart, measured at each protocol-defined visit until progression.
5. Duration of PSA response: time from the date of documented PSA50 response to the date of documented PSA Progression.
6. Progression-free survival on subsequent therapy (PFS2) is defined as the time from randomization to the date of progression (radiographic, clinical, or PSA progression) on the first subsequent anti-cancer (second progression), or death from any cause, whichever comes first.
7. Incidence and severity of adverse events (AEs)/serious adverse events (SAEs): summary tables of the number and seriousness of AEs/SAEs recorded for enrolled participants from baseline and throughout the treatment period until 42 days after the last dose will be presented by SOC and PT and by treatment group.
8. Clinical laboratory test results: Participants with laboratory abnormalities (haematology, serum chemistry, coagulation, and tumour markers) at baseline and at each subsequent protocol-defined visit will be summarised and reported.
9. Patient-reported outcomes measured using the BPI-SF worst pain item score, the EORTC QLQ-C30 GHS/QoL functional and symptom scales, the EORTC QLQ-PR25 functional and symptom scales, and the EQ-5D VAS at baseline and at each protocol-defined visit.
10. Time to sustained worsening of pain measured using Brief Pain Inventory-Short Form (BPI-SF), defined as the time interval from randomization to the first date a patient experiences a clinically meaningful threshold change (≥ 2 points).
11. EORTC IL 46 and the EQ-5D-5L will be measured at baseline and at each protocol-defined visit, with descriptive summaries and statistics produced for each assessment, by treatment group.

Completion date
30/08/2030

Eligibility

Key inclusion criteria
1. Be 18 years of age or older at the time of informed consent.
2. Have histologically confirmed adenocarcinoma of the prostate.
3. Have disease that is metastatic at the time of the screening as determined by the investigator.
4. Have progressive disease (defined as per the trial protocol)
5. Participants must receive ongoing androgen deprivation therapy (ADT) with a gonadotropin

releasing hormone (GnRH) analogue (agonist or antagonist) throughout the Treatment Phase or have had prior bilateral orchiectomy and have serum testosterone lower than or equal to50 ng /dL at screening.
6. Have progressed on at least one novel androgen receptor pathway inhibition (ARPI) treatment but received no more than two different ARPI for any stage of disease. Must have discontinued ARPI before randomisation into the study.
7. Have an Eastern Cooperative Oncology Group (ECOG) performance status of 0 to 1.
8. Have an estimated glomerular filtration rate (eGFR) of more than 30 mL/min during the screening period. Participants with obstructive uropathy should have treatment prior to randomisation (e.g., foley catheter, nephrostomy tubes, etc).
9. Have the protocol specified laboratory values for hepatic function during the screening period.
10. Have the protocol specified hematologic laboratory values during the screening period.
13. Agree (while on study treatment and for 6 months after the last dose of study treatment) to not donate gametes (i.e., sperm) or freeze for future use for the purposes of assisted reproduction, and to wear an external condom when transmission of sperm/ejaculate can occur. If able to produce sperm and their partner is of childbearing potential, the partner must practice a highly effective method of contraception.
14. Participant (or their legally designated representative) must sign an informed consent form.
15. Be willing and able to adhere to the lifestyle restrictions specified in this protocol.

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
18 years

Upper age limit
100 years

Sex
Male

Total final enrolment
0

Key exclusion criteria
1. Known history of either brain or leptomeningeal prostate cancer metastases.
2. Patients with known BReast CAncer gene (BRCA) 1/2 mutations (germline or somatic) who have not received treatment with a poly (ADP-ribose) polymerase (PARP) inhibitor, unless not available or contraindicated.
3. Suspected or known allergies, hypersensitivity, or intolerance to pasritamig or docetaxel excipients.
4. Not recovered from recent surgery.
5. Solid organ or bone marrow transplantation.
6. Active autoimmune disease within the 12 months prior to signing consent that requires

systemic immunosuppressive medications.
7. Any of the protocol specified cardiac conditions within 6 months prior to first dose of study treatment.
8. Prior or concurrent second malignancy (other than the disease under study) because the natural history or treatment could interfere with study endpoints.
9. Received cytotoxic chemotherapy for prostate cancer in any setting.
10. Received prior treatment with human kallikrein 2 (KLK-2) -directed therapies.
11. Received prior treatment for prostate cancer with any protocol specified therapies.
12. Participants who are HIV-positive and meet any of the protocol specified criteria.
13. Active hepatitis of infectious origin.
14. Received or plans to receive any live, attenuated vaccine within 4 weeks before the first dose of study treatment. Non-live and non-replication-competent vaccines are allowed.
15. Received systemic glucocorticoids (doses greater than 10 mg/day prednisone or equivalent) within 3 days prior to the first dose of study treatment. A single course of glucocorticoids is permitted as prophylaxis for imaging contrast. If glucocorticoids were used to treat immune-related adverse events associated with prior therapy, at least 7 or more days must have elapsed since the last dose of corticosteroid
16. Received external beam radiation therapy within 14 days prior to start of study treatment. However, if palliative focal radiation was used, the participant is eligible regardless of date of radiation.
17. Any condition which, in the opinion of the investigator, would not be in the best interest of the participant (e.g., compromise the well-being) or that could prevent, limit, or confound the protocol-specified assessments.

Date of first enrolment
30/01/2026

Date of final enrolment
27/08/2027

Locations

Countries of recruitment
United Kingdom

England

Scotland

Wales

Australia

Belgium

Brazil

Canada

China

France

Germany

Italy

Japan

Malaysia

Spain

Taiwan

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Sponsor information

Organisation
Janssen-Cilag International NV

Funder(s)

Funder type
Industry

Funder Name
Janssen-Cilag International NV

Results and Publications

Individual participant data (IPD) sharing plan

The data-sharing policy of the Janssen Pharmaceutical Companies of Johnson and Johnson is available at https://www.janssen.com/clinical-trials/transparency. As noted on this site, requests for access to the study data can be submitted through the Yale Open Data Access (YODA) Project site at yoda.yale.edu

IPD sharing plan summary

Available on request