A trial to investigate the effects of multiple doses of JNJ-67484703 in patients with rheumatoid arthritis, ulcerative colitis and Sjögren's syndrome

Submission date 22/07/2022	Recruitment status No longer recruiting	[X] Prospectively registered [_] Protocol
Registration date 28/09/2022	Overall study status Ongoing	 Statistical analysis plan Results
Last Edited 15/04/2025	Condition category Other	Individual participant data[X] Record updated in last year

Plain English summary of protocol

Background and study aims

The aim of the PARIS trial is to understand if JNJ-67484703, also referred to as the trial drug, can alter the numbers of disease-associated immune cells in diseased tissue in patients with rheumatoid arthritis (RA), ulcerative colitis (UC) and Sjögren's syndrome (SjS). This will be done by taking a small amount of diseased tissue before and after a 12-week treatment period with the study drug. The numbers of these immune cells can be measured in the biopsy tissue to understand if they are altered by the trial drug. Patients will be closely monitored to see if they feel better or not on treatment and to look for side effects. For patients with RA, biopsy tissue will be obtained by using an ultrasound machine to guide a needle to take samples of the lining of the joint. For patients with UC, bowel tissue will be taken during a camera test of the bowels. For patients with SjS, a small amount of salivary gland tissue will be obtained by a routine lip biopsy. All these biopsy procedures are performed regularly at the hospitals taking part in the study and will be done by someone with the appropriate training and experience. At the end of the trial, we hope to know if the trial drug acts in the way we expect.

Who can participate?

The trial is for patients aged between 18-75 years with either RA, UC or SjS who, based on predefined inclusion/exclusion criteria, have active disease and are fit enough to receive multiple doses of the trial drug.

What does the study involve?

All patients will enter a screening period and be assessed using the eligibility criteria. If the patient is eligible, the patient will enter the treatment phase of the trial where they will receive an injection of the trial drug under the skin 7 times over 10 weeks. These injections are injected into the fatty layer just below the skin. 5 patients from each cohort will receive a low dose and 10 will receive a higher dose. After the treatment phase, patients will be followed up at 2 further visits over a 12-week period.

What are the possible benefits and risks of participating?

Patients may not directly benefit from participating in this trial, as the benefit of JNJ-67484703 in patients with RA, UC and SjS is not yet proven. However, by taking part patients will be helping us to see if JNJ-67484703 could be used in the future as a treatment for people with RA, UC and SjS.

Where is the study run from? University of Birmingham (UK)

When is the study starting and how long is it expected to run for? January 2020 to October 2025

Who is funding the study? Janssen Research and Development, LLC (USA)

Who is the main contact? Dr Benjamin Fisher (UK) PARIS@trials.bham.ac.uk

Contact information

Type(s) Public

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Type(s)

Scientific

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Additional identifiers

EudraCT/CTIS number 2021-005998-13

IRAS number 1004476

ClinicalTrials.gov number Nil known

Secondary identifying numbers RG_21-180, IRAS 1004476, CPMS 53062

Study information

Scientific Title

Pharmacodynamic activity trial of JNJ-67484703 in rheumatoid arthritis, ulcerative colitis and Sjögren's syndrome (PARIS): a phase II proof of biology trial

Acronym

PARIS

Study objectives

The principal hypothesis of this trial is that treatment with JNJ-67484703 will lead to a dosedependent alteration in immune cell subsets in disease-relevant tissue.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Approved 24/05/2022, South Central - Berkshire B Research Ethics Committee (The Old Chapel, Royal Standard Place, Nottingham, NG1 6FS, United Kingdom; +44 (0)207 104 8253; berkshireb. rec@hra.nhs.uk), ref: 22/SC/0128

Study design

Multiple-dose parallel multicentre open-label interventional study

Primary study design Interventional

Secondary study design

Non randomised study

Study setting(s) Hospital

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Study type(s)

Treatment

Participant information sheet

Not available in web format, please use contact details to request a participant information sheet

Health condition(s) or problem(s) studied

Rheumatoid arthritis, ulcerative colitis and Sjögren's syndrome

Interventions

Patients will receive the trial drug JNJ-67484703 at either a low (0.5mg/kg) or high (3mg/kg) dose. Each patient will receive the trial drug at weeks 0, 1 and 2 and then every 2 weeks until week 10. The first 5 participants in each disease cohort will be allocated to the 0.5 mg/kg dosing cohort, and subsequent participants will be allocated to the 3 mg/kg regimen, subject to possible modifications.

Intervention Type

Drug

Phase Phase II

Drug/device/biological/vaccine name(s)

JNJ-67484703

Primary outcome measure

The biological effects of multiple doses of JNJ-67484703 in disease-relevant tissues (synovium, gut, salivary gland) over time in participants with RA, UC and SjS, measured using cellular analysis techniques at weeks 0, 12

Secondary outcome measures

1. Safety and tolerability measured using NCI-CTCAE criterion Version 5 at weeks 0, 1, 2, 4, 6, 8, 10, 12, 16, and 24

2. Disease-relevant immune cell populations measured using cellular analysis techniques at weeks 0, 6, 12, 24

3. Inflammation in target tissue measured using Krenn scoring (RA), Focus score, mean foci area, the percentage area of infiltration, T/B cell organisation and presence of germinal centre-like structures (SjS), Robarts Histopathology Index (RHI) and Nancy Index at weeks 0 and 12

4. Markers of inflammation in peripheral blood measured using immunoassays at weeks 0, 6, 12, and 24

5. Autoantibody levels measured using immunoassays at weeks 0, 6, 12, and 24

6. Clinical measures of disease activity:

6.1. Overall disease activity in RA as measured by:

6.1.1. Disease Activity Score 28 using C-reactive protein (DAS28-CRP) at weeks 0, 6, 12, and 24

6.1.2. Physician global visual analogue scale (VAS) weeks 0, 6, 12, and 24

6.1.3 Response to treatment in RA as measured by:

6.1.3.1. European Alliance of Associations for Rheumatology (EULAR) response weeks 0, 6, 12, and 24

6.1.3.2. Proportion of participants in DAS28-CRP remission (<2.6) and low disease activity (≤3.2) states weeks 0, 6, 12, and 24

6.2. Overall disease activity in SjS as measured by:

6.2.1. Physician global VAS at weeks 0, 6, 12, and 24

6.2.2. Response to treatment in SjS as measured by Composite of Relevant Endpoints for SjS (CRESS) responders (ultrasound excluded)

6.2.3. Salivary flow in SjS as measured by Unstimulated salivary flow (ml/min; assuming 1g≈1ml) at weeks 0, 6, 12, 24

6.2.4. Stimulated salivary flow (ml/min; assuming 1g≈1ml) at weeks 0, 6, 12, 24

6.2.5. Ocular involvement in SjS as measured by Schirmer's test (mm) at weeks 0, 12

6.3. Overall disease activity in UC as measured by:

6.3.1. Mayo clinic score (MCS) at weeks 0, 12

6.3.2. Partial Mayo Clinic Score at weeks 0, 2, 4, 6, 8, 10, 16, 24

6.3.3. Simple Clinical Colitis Activity Index (SCCAI) at weeks 0, 2, 4, 6, 8, 10, 12, 16, 24

6.3.4. Response to treatment in UC as measured by:

6.3.4.1. Endoscopic healing (Ulcerative Colitis Endoscopic Index of Severity [UCEIS] <1 and Mayo Endoscopic Score [MES] <1) at weeks 0, 12

6.3.4.2. Clinical remission (rectal bleeding [RB]=0 and stool frequency[SF]=0) at weeks 0, 12 6.3.4.3. Clinical response (30% decline in MCS and RB=0 and SF <1 and MES <1) at weeks 0, 12 6.3.4.4. Change detected by artificial intelligence reading of endoscopy videos (Satisfai system) at weeks 0, 12

7. Participant-reported outcomes measured using:

7.1. Health-related Quality of Life as measured by EQ-5D-5L at weeks 0, 6, 12, and 24

7.2. Fatigue as measured by FACIT-Fatigue at weeks 0, 6, 12, and 24

7.3. Patient assessment of overall disease activity as measured by Patient Global Disease Activity VAS at weeks 0, 6, 12, and 24

7.4. Pain in RA as measured by pain VAS at weeks 0, 2, 4, 6, 8, 10, 12, 16, and 24

7.5. Physical function in RA as measured by:

7.5.1. Physical function as assessed by HAQ-DI at weeks 0, 6, 12, and 24

7.5.2. Symptom burden in SjS as measured by EULAR SjS patient Reported index (ESSPRI) at weeks -6, 0, 2, 4, 6, 8, 10, 12, 16, and 24

7.6. Symptom burden in UC as measured by:

7.6.1. Inflammatory Bowel Disease Questionnaire (IBDQ) at weeks 0, 4, 8, and 12 7.6.2. IBD Control at weeks 0, 2, 4, 6, 8, 10, 12, 16, and 24

Overall study start date 01/01/2020

Completion date 31/10/2025

Eligibility

Key inclusion criteria

Main inclusion criteria for all cohorts:

1. Informed consent must be obtained provided prior to any trial-related procedures being performed

2. Male and female participants aged \geq 18 and \leq 75 years at the time of enrolment

3. Able to communicate well with the investigator, and to understand and comply with the requirements of the trial

4. Willing to have repeat tissue biopsy relevant to disease group (ultrasound-guided synovial biopsy, minor salivary gland biopsy or endoscopic colonic mucosal biopsy)

5. Body weight within the range of 45.0 kg to 120.0 kg, inclusive

Inclusion criteria for patients with rheumatoid arthritis (RA):

6. Confirmed clinical diagnosis of RA

7. Active RA

8. Joint amenable to biopsy by ultrasound criteria

9. Autoantibody positive

10. Have methotrexate (MTX) inadequate response

11. If using regular non-steroidal anti-inflammatory drugs (NSAIDs) must be on a stable dose

Inclusion criteria for patients with ulcerative colitis (UC):

12. Confirmed clinical diagnosis of UC

13. Moderately to severely active UC on endoscopy

15. Either primary non-response or secondary loss of response to one or more biologic or targeted synthetic therapies

16. Medications/therapies must have been discontinued by the number of stated weeks before Visit 2 (Baseline) as outlined in the protocol.

17. A participant ≥45 years of age must have had a full colonoscopy. Adenomatous polyps must be removed before the first dose of trial intervention

18. A participant who has had extensive colitis for ≥8 years, or disease limited to the left side of the colon for ≥10 years, must have or have had a full colonoscopy to assess for the presence of dysplasia or malignancy at the Screening Visit

Inclusion criteria for patients with Sjögren's syndrome (SjS):

19. A diagnosis of SjS, according to the 2016 American College of Rheumatology (ACR)/European League Against Rheumatism (EULAR) classification criteria

20. Autoantibody positive

21. At least "low activity" in the biological domain of EULAR Sjögren's syndrome (SS) disease activity index (ESSDAI)

22. ESSPRI component scores as outlined in the protocol

23. Residual stimulated whole salivary flow

Participant type(s)

Patient

Age group Adult

Lower age limit 18 Years

Upper age limit

Sex Both

Target number of participants

45

Key exclusion criteria

Main exclusion criteria for all cohorts:

- 1. Prior B cell depletion
- 2. Other biologic therapy or targeted synthetic disease-modifying antirheumatic drugs (DMARDs)

3. Receipt of any investigational medicinal product within 16 weeks, or approximately 5 half-lives (whichever is longer) prior to Visit 2 (baseline)

4. Any active or ongoing viral, bacterial or other infections

5. Confirmed, suspected, or close contact with a person with known or suspected SARS-CoV-2 infection

6. Major organ, haematopoietic stem cell or bone marrow transplant

7. Any cancer within the previous 5 years,

8. Severe, uncontrolled fibromyalgia symptoms.

9. Treatment with glucocorticoids unless on a stable dose of prednisolone

- 10. Positive test for HIV, Hepatitis C Virus or Hepatitis B Virus
- 11. Active cytomegalovirus (CMV) or Epstein–Barr virus (EBV)
- 12. Live vaccine within 12 weeks of registration
- 13. Bacillus Calmette-Guérin (BCG) vaccination within 12 months prior to trial drug administration.
- 14. Evidence of active or latent tuberculosis (TB)
- 15. Has known allergies, hypersensitivity, or intolerance to JNJ-67484703 or its excipients
- 16. Any medical, surgical or psychiatric condition that the investigator believes may jeopardise the participant, or the validity of the trial results, were they to participate in the trial

17. Has experienced myocardial infarction, unstable ischaemic heart disease, or stroke within 12 weeks of Screening Visit

18. Female who is pregnant, breastfeeding, intends to become pregnant or is of childbearing potential, not willing to use highly effective contraceptive methods

19. A non-vasectomised male participant who refuses to wear a condom during the trial and for 14 weeks after the last dose of trial treatment when engaging in any activity that allows for passage of ejaculate to another person. An additional method of highly effective method of contraception must also be used.

20. A male participant must agree not to donate sperm for the purpose of reproduction during the trial and for a minimum 14 weeks after receiving the last dose of the trial intervention

21. Screening laboratory test results as specified in the protocol

22. Advised by clinician not to have a tissue biopsy due to clinical reasons or anti-coagulant use 23. Septic arthritis of a native or prosthetic joint in the last 12 months (or indefinitely if the prosthetic joint remains in situ)

Exclusion criteria for patients with rheumatoid arthritis:

24. History of or current inflammatory joint disease other than RA

25. Currently taking anticoagulant medications (not anti-platelet agents) that would contraindicate synovial biopsy

26. DMARD or other immunosuppressive therapy with the exception of methotrexate, sulfasalazine or hydroxychloroquine at stable doses

Exclusion criteria for patients with ulcerative colitis:

27. History of severe extensive colitis

28. Has UC limited to the rectum only

29. Presence or history of a fistula

30. History of colonic mucosal dysplasia.

31. Presence on screening endoscopy of adenomatous colonic polyps, if not removed before trial entry, or history of adenomatous colonic polyps that were not removed

32. Diagnosis of indeterminate colitis, microscopic colitis, ischemic colitis, or Crohn's disease or clinical findings suggestive of Crohn's disease

Exclusion criteria for patients with Sjögren's syndrome:

33. Diagnosis of any other non-SjS sicca syndrome

34. DMARD or other immunosuppressive therapy with the exception of methotrexate, sulfasalazine, hydroxychloroquine, leflunomide or azathioprine

35. Regular use of medications known to cause dry eyes or mouth as a common side effect

36. Topical ocular prescription medications other than artificial tears and lubricating gels

37. Has SjS overlap syndromes where another confirmed autoimmune rheumatic or systemic

inflammatory condition is the primary diagnosis

38. Certain eye surgeries:

38.1. Has had cataract surgery prior to dosing and new installation of lacrimal punctal plugs prior to dosing

38.2. Has had a full-thickness corneal transplantation (penetrating keratoplasty); however, participants who have had endothelial keratoplasty are not excluded

Date of first enrolment

30/09/2022

Date of final enrolment

15/06/2023

Locations

Countries of recruitment England

United Kingdom

Study participating centre

University Hospitals Birmingham NHS Foundation Trust Queen Elizabeth Hospital Mindelsohn Way Edgbaston Birmingham United Kingdom B15 2GW

Study participating centre

Oxford Radcliffe Hospital NHS Trust

The John Radcliffe Headley Way Headington Oxford United Kingdom OX3 9DU

Study participating centre The Freeman Group of Hospitals NHS Trust Freeman Hospital Freeman Road High Heaton Newcastle upon Tyne United Kingdom NE7 7DN

Study participating centre Guys and St Thomas Hospital Great Maze Pond London United Kingdom SE1 9RT

Study participating centre Royal London Hospital 4 Newark Street London United Kingdom E1 2AT

Sponsor information

Organisation University of Birmingham

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Sponsor type University/education

Website https://www.birmingham.ac.uk/index.aspx

ROR https://ror.org/03angcq70

Funder(s)

Funder type Industry

Funder Name Janssen Research and Development

Alternative Name(s)

Janssen R&D, Janssen Research & Development, Janssen Research & Development, LLC, Janssen Research & Development LLC, Janssen Pharmaceutical Companies of Johnson & Johnson, Research & Development at Janssen, JRD, J&J PRD

Funding Body Type Private sector organisation

Funding Body Subtype For-profit companies (industry)

Location United States of America

Results and Publications

Publication and dissemination plan Planned publication in a high-impact peer-reviewed journal

Intention to publish date 31/03/2025

Individual participant data (IPD) sharing plan

The data-sharing plans for the current study are unknown and will be made available at a later date

IPD sharing plan summary

Data sharing statement to be made available at a later date

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
HRA research summary			28/06/2023	No	No