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A study to investigate the safety, tolerability and effect of RXC008 in healthy volunteers

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Registration date 04/03/2024	**Overall study status** Completed	[_] Statistical analysis plan [X] Results
Last Edited 11/07/2025	**Condition category** Other	[_] Individual participant data

Plain English summary of protocol

Background and study aims
The purpose of this study is to investigate the study drug RXC008. The overall objectives of this study are to determine the safety, tolerability (degree to which side effects of a drug can be tolerated) and concentration in the blood, urine, tissue and stool of RXC008 when RXC008 is administered in different conditions i.e., single versus multiple doses and evaluating different dose strengths.

Who can participate?
A total of 59 participants fully completed this study. Participants must be healthy adult males aged between 18 and 50.

What does the study involve?
The purpose of Part A is to evaluate the study objectives when RXC008 is administered as a single dose at increasing dose strengths. Part A will consist of up to 6 planned groups of up to 6 participants (with the option to include a maximum of 2 additional groups of up to 6 participants): each group will evaluate a different dose of RXC008 starting at the lowest dose and gradually increasing in each group. This is known as a single ascending dose (SAD) study. Each group will receive RXC008 or a placebo (which contains no active drug) in the form of an oral capsule(s). Part A of the study will consist of a screening visit (between 35 and 2 days prior to first dose), one treatment period (consisting of a maximum of 5 days with 4 overnight stays) and a post-study follow-up visit 14 days after the dose of RXC008 on Day 1.

The purpose of Part B is to evaluate the study objectives when RXC008 is administered as multiple doses up to a maximum of three times a day over a period of up to 14 days at increasing dose strengths. Part B will consist of up to 3 planned groups of up to 8 participants (with the option to include a maximum of 2 additional groups of up to 8 participants): each group will evaluate a different dose based on doses which have been evaluated in Part A of the study (where single doses at different dose strengths were given). This is known as a multiple ascending dose (MAD) study. Each group will receive RXC008 or a placebo (which contains no active drug) in the form of an oral capsule(s). Part B of the study will consist of a screening visit

(between 35 and 3 days prior to first dose), one ileocolonoscopy visit (Day -7 to Day -3), one treatment period (consisting of a maximum of 17 days with 16 overnight stays) and a post-study follow-up visit 14 days after the last dose of RXC008 on Day 14.

Blood, urine, tissue and stool samples will be taken at set timepoints throughout each part of the study in order to measure the levels of RXC008. In the context of the whole study, we will analyse the results from each of the groups and each study part and combine this information in order to better understand how RXC008 works in the body following assessment of different factors within each study part i.e., single versus multiple doses and different dose strengths.

What are the possible benefits and risks of participating?
Taking part in this study is not expected to provide participants with any direct medical benefit. However, the information we get from this study may help improve the treatment of Crohn's Disease and other conditions associated with fibrosis.

Possible risks include the following:

Blood Sampling
The procedure for blood collection either by direct venepuncture or indwelling cannula may cause mild pain and bruise at the collection site. Placement of an indwelling catheter is proposed in order to minimise these effects for rapid PK sampling. Very rarely, a blockage of a vein or a small nerve injury can occur, resulting in numbness and pain. If this occurs, it will resolve with time.

Blood pressure and pulse rate
The participant's blood pressure and pulse will be measured using an inflatable cuff which will be placed on the arm. They may experience mild discomfort in the arm whilst the cuff is inflated.

ECG
Small sticky pads will be placed on the participants' upper bodies before the ECG and an ECG machine will measure the electrical activity of the participant's heart. Before the pads are applied, the skin needs to be cleaned. Trained staff may need to shave/clip small patches of the participant's hair in these areas. Like Elastoplast® these sticky pads may be uncomfortable to remove.

Telemetry/ABPM Recording
This procedure may cause mild irritation, slight redness, and itching at the areas on the skin where the recording patches are placed.

Stool Sampling
There is no discomfort/risk expected with this procedure. However, participants may find the provision of the sample itself to be unpleasant in nature.

Ileocolonoscopy/Examination of the small intestine (Tissue Biopsy Procedure)
Risks and complications from this procedure include nausea, vomiting, faintness or dizziness, headache, pain, and allergy to medication given during the procedure as applicable. Passage of the tube may result in an injury or tear to the gut wall, with possible leakage of gut contents into the body cavity. These tears can be small requiring a few days of hospitalisation or could be severe requiring prolonged hospitalisation and/or surgery. Bleeding, if it occurs, is usually a complication of biopsy and is usually not severe. Management of this complication may consist only of careful observation and blood transfusions/surgery are rarely needed. Rarely, passage of the tube and biopsy may cause infection elsewhere in the body

COVID-19 Risks
Participants should also be aware of the risks of exposure to COVID-19. When participants attend the clinical unit at each visit, they may be asked to complete a self-declaration form and temperature check to confirm that they are not showing any early signs of COVID-19 infection and that they have not had any contact with individuals who are currently self-isolating or have tested positive (dependent on risk mitigation measures employed at the clinical unit at the time of clinical conduct).

Participants may also be required to have a negative COVID-19 test prior to admission to the clinical unit for any overnight stays as defined within the study protocol. This procedure may cause some mild discomfort in the nose or throat when the swab is being taken but this should resolve after the procedure has been completed.

Additionally, at the clinical unit, participants may be asked to wear a facemask during procedures where clinical staff cannot maintain a 2 m distance. It is noted that if participants have a medical exemption from wearing a face mask, they will not be required to do so. In any circumstance, to prevent risk of transmission between staff and participants, all staff will be wearing appropriate personal protective equipment i.e., face masks, face shields etc during the course of the study.

Harm to the unborn child
Male participants with a female partner of childbearing potential must agree to use a highly effective form of contraception, in addition to a male condom from the first dose until at least 3 months after the last dose in each study part.
Throughout the study the health of the participants will be regularly monitored and appropriate treatment for any medical condition will be provided if required. All doctors employed by Simbec-Orion & Medicines Evaluation Unit (MEU) are trained and certified in Advanced Life Support Procedures in order to deal with a medical emergency. Nurses and other clinical staff are also trained in emergency procedures. Simbec-Orion & Medicines Evaluation Unit (MEU) also have agreements in place with local hospitals and intensive care facilities for referral of participants if required following a medical emergency.

Where is the study run from?
The study will be conducted at Simbec-Orion Clinical Pharmacology Unit, an MHRA Phase 1 accredited CRO based in South Wales for Part A and Medicines Evaluation Unit (MEU), an MHRA Phase 1 accredited CRO based in Manchester for Part B.

When is the study starting and how long is it expected to run for?
The study will commence in February 2024 and complete in September 2024.

Who is funding the study?
This study is funded and sponsored by RedX Pharma Ltd, based and headquartered in the United Kingdom (UK).

Who is the main contact?
Dr Helen Timmis, RedX Pharma Ltd

Contact information

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Public, Scientific

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Additional identifiers

Integrated Research Application System (IRAS)
1008652

Protocol serial number
RXC008-0001

Study information

Scientific Title
A study to assess the safety, tolerability, pharmacokinetics and pharmacodynamics of RXC008 after single and multiple ascending oral doses in healthy participants

Acronym
Nil known

Study objectives

The primary objective of this study is:
1. To evaluate the safety and tolerability of single and multiple doses of RXC008 administered orally in healthy participants.

The secondary objective of this study is:
1. To characterise the PK of RXC008 following single and multiple doses of RXC008 administered orally in healthy participants.

Ethics approval required
Ethics approval required

Ethics approval(s)
1. Approved 20/12/2023, Wales Research Ethics Committee 2 (Health and Care Research Wales, Castlebridge 4, 15-19 Cowbridge Road East, Cardiff, CF11 9AB, United Kingdom; +44 (0)2922 941119; Wales.REC2@wales.nhs.uk), ref: 23.WA.0280

2. Approved 27/12/2023, MHRA (MHRA, 10 South Colonnade, Canary Wharf, London, E14 4PU, United Kingdom; +44 (0)20 3080 6000; info@mhra.gov.uk), ref: CTA 48121/0006/001-0001

Primary study design
Interventional

Study design
A two-part first-in-human trial in up to 59 healthy participants

Study type(s)
Other, Safety

Health condition(s) or problem(s) studied
Healthy volunteers

Interventions
This was a phase I, randomised, double blind, placebo-controlled study to assess the safety, tolerability, PK, PD/exploratory biomarkers of RXC008 in healthy participants following ascending single (Part A) and multiple doses (Part B).

Part A comprised of 6 Single Ascending Dose (SAD) cohorts. Each cohort in Part A planned to enrol 6 participants, randomised (2:1) to receive RXC008 (4 participants) or placebo (2 participants). In Part A the SAD cohorts followed a SAD design with all participants receiving one dose of RXC008 (or placebo) in the fasted state.

Participants in Part A (SAD cohorts) undertook a screening period (Day -35 to Day -2), an in-house treatment period comprising 4 overnight stays (from Day -1 to Post-Treatment 3 (i.e., Day 4)), and a follow up visit 14 days following administration of RXC008 or placebo (i.e., Day 15).

Part B comprised of 3 Multiple Ascending Dose (MAD) cohorts. Each cohort in Part B planned to enrol 8 participants, randomised 3:1 to receive RXC008 (6 participants) or placebo (2 participants). Each participant was assigned to only one cohort. The MAD cohorts followed a MAD design with participants receiving RXC008 (or placebo) once daily for 14 consecutive days, in a fasted state.

Participants in Part B (MAD cohorts) undertook a screening period (Day -35 to Day -4), followed by an ileocolonoscopy taking place on a single day between Day -7 and Day -3. Participants then completed an in-house treatment period comprising of 16 overnight stays (from Day -1 to Post-Treatment 2 (i.e., Day 16)), and a follow up visit 14 days following final administration of RXC008 or placebo (i.e., Day 28).

For Parts A and B, a dose leader design was implemented with 2 participants being dosed on the first dosing day of each cohort. Of these 2, 1 was on active drug and 1 on placebo. The remainder of the cohort was dosed at least 24 h later pending an acceptable safety profile in the dose-leader group and contained at least 1 additional placebo participant.

Parts A and B took place between Q1 2024 (first participant first visit) and Q3 2024. The conclusion of the study is defined as last participant last visit (in Part B).

Part A took place in the Clinical Unit of Simbec-Orion Clinical Pharmacology under full medical and nursing supervision. Medicines Evaluation Unit was responsible for recruitment and clinical conduct of Part B with full medical and nursing supervision. The Ileocolonoscopies in Part B were performed at EndoCare Diagnostics, Manchester.

Intervention Type
Drug

Phase
Phase I

Drug/device/biological/vaccine name(s)
RXC008 Oral Capsules

Primary outcome(s)
1. The number of incidents of Treatment-emergent adverse events (TEAEs), serious adverse events (SAEs) and discontinuations due to Adverse Events (AEs).
2. Laboratory safety (biochemistry, haematology, coagulation and urinalysis).
3. Vital signs (systolic/diastolic blood pressure [including ambulatory BP], heart rate, respiration rate, oral body temperature).
4. 12-lead ECG (heart rate, PR interval, QRS width, QT interval, QTcF interval).

Timepoints for Assessment are as follows:
Adverse Events & Serious Adverse Events - AEs & SAEs will be recorded from the point of informed consent up to final post-study follow up visit.

Laboratory Safety Testing
Part A: Set timepoints from Screening until Day 15 (end of study visit - applies to all treatment periods)
Part B: Set timepoints from Screening until Day 28 (end of study visit)

Vital Signs
Part A: Set timepoints from Screening until Day 15 (end of study visit - applies to all treatment periods)
Part B: Set timepoints from Screening until Day 28 (end of study visit)

12-Lead ECG
Part A: Set timepoints from Screening until Day 15 (end of study visit - applies to all treatment periods)
Part B: Set timepoints from Screening until Day 28 (end of study visit)

Key secondary outcome(s)
Pharmacokinetic parameters derived from analysis of plasma samples for concentrations of RXC008.

Endpoints are defined as follows:
PART A:
1. Plasma: Cmax, Tmax, AUC0-t

PART B:
1. Plasma (Day 11/12 only): Cmax, Tmax, AUC0-t
2. Ileal and colon tissue: concentration only - C(n)

Timepoints for Assessment are as follows:
Plasma PK Sampling
Part A: Set timepoints from Day 1 pre-dose until 24 hr post-dose (applies to all treatment periods)
Part B: Set timepoints from Day 1 pre-dose until 24 hr post-dose & Day 11 pre-dose until 24 hr post-dose

Completion date
05/09/2024

Eligibility

Key inclusion criteria
1. Male between 18-50 years of age (extremes included), on the day of signing the informed consent form (ICF).
2. Participant with a body mass index (BMI) of 18-30kg/m^2.
BMI = body weight (kg) / height (m)^2.
3. No clinically significant history of previous allergy / sensitivity to RXC008 or any of the excipients contained within the IMP.
4. No clinically significant abnormal test results for serum biochemistry, haematology and/or urine analyses within 35 days before the first dose administration of the IMP.
5. No clinically significant abnormalities in 12-lead electrocardiogram (ECG) determined within 35 days before first dose of IMP including a PR interval > 220ms, QRS width > 120ms and QTcF interval > 450 ms.
6. No clinically significant abnormalities in vital signs (e.g., blood pressure (systolic blood pressure < 90 mmHg or diastolic blood pressure < 50mmHg) / heart rate, respiration rate, oral temperature) determined within 35 days before first dose of IMP.
7. Participant must be available to complete the study (including all follow-up visits).
8. Male participant (and partner of childbearing potential) willing to adhere to the contraceptive requirements in Section 10.6.1.
9. Participant must provide written informed consent to participate in the study.
10. Participant must be willing to comply with institutional COVID-19 testing policy.
11. Participant with negative human immunodeficiency virus (HIV), hepatitis B surface antigen

(HBsAg)) and hepatitis C virus antibody (HCV Ab) test results at Screening.
12. Participant with a negative urinary drugs of abuse (DOA) screen (including alcohol) test results, determined within 35 days before the first dose administration of the IMP (N.B.: A positive test result may be repeated at the Investigator's discretion).
13. Participant with a negative COVID-19 test on admission (if required).

Part B Only
14. Participant must be considered fit to undergo two ileocolonoscopies, in the opinion of the Investigator.

Participant type(s)
Healthy volunteer

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 Years

Upper age limit
50 Years

Sex
Male

Key exclusion criteria
1. Evidence of renal, hepatic, central nervous system, respiratory, cardiovascular or metabolic dysfunction.
2. A clinically significant history of drug or alcohol abuse (defined as the consumption of more than 14 units of alcohol a week) within the past two years.
3. Inability to communicate well with the Investigators (i.e., language problem, poor mental development or impaired cerebral function).
4. Prior treatment with RXC008.
5. Participation in a New Chemical Entity (NCE) clinical study within the previous 3 months or five half-lives, whichever is longer, or a marketed drug clinical study within the 30 days or five half-lives, whichever is longer, before the first dose of IMP. (Washout period between studies is defined as the period of time elapsed between the last dose of the previous study and the first dose of the next study).
6. Donation of 450 mL or more blood within the 3 months before the first dose of IMP.
7. Dietary restrictions that would prevent the subject from consuming a standardised meal or gelatine capsule.
8. Any concurrent illness, condition, disability, or clinically significant abnormality (including laboratory tests, or clinically significant illness in the three months prior to initial IMP administration) that, in the investigator's opinion, represents a safety risk participation in the study, may affect the interpretation of clinical safety or efficacy data, or may prevent the participant from safely completing the assessments required by the protocol.
9. Use of prescription or non-prescription drugs, including vitamins, herbal and dietary supplements within 35 days or 5 half-lives (whichever is longer) prior to the first dose of IMP.

10. Users of nicotine products i.e., current smokers or ex-smokers who have smoked within the 6 months prior to Screening or users of cigarette replacements (i.e., e-cigarettes, nicotine patches or gums).
11. Participants who are unable to demonstrate the ability to swallow multiple “dummy” capsules (i.e., empty gelatine capsules) of the size proposed for administration in a particular cohort/dose level (up to and including size 00).

Date of first enrolment
01/02/2024

Date of final enrolment
23/07/2024

Locations

Countries of recruitment
United Kingdom

England

Wales

Study participating centre
Simbec Research Limited
Simbec House Merthyr Tydfil Industrial Park
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Study participating centre
Medicines Evaluation Unit Limited
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Sponsor information

Organisation

Redx Pharma (United Kingdom)

ROR
https://ror.org/04wysdg63

Funder(s)

Funder type
Industry

Funder Name
Redx Pharma Plc

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated and/or analysed during the current study are not expected to be made available because of their high commercial sensitivity and the negligible benefit to the public of publication of results of non-therapeutic clinical trials.

IPD sharing plan summary
Not expected to be made available

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Abstract results	version 1.0	22/01/2025	11/07/2025	No	No
Basic results		11/07/2025	11/07/2025	No	No