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A study to investigate the safety and concentration in the blood and urine of different dose strengths of OCT461201 in healthy volunteers

Submission date
31/05/2023

Recruitment status
No longer recruiting

Registration date
31/05/2023

Overall study status
Completed

Last Edited
22/05/2024

Condition category
Other

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

Plain English summary of protocol

Background and study aims
The purpose of this study is to investigate the study drug OCT461201. The main objectives of the study are as follows:
1. To determine the safety and tolerability (the degree to which the side effects of a drug can be tolerated) of OCT461201 when it is administered once (in the form of oral capsules) at different dose strengths.
2. To investigate the concentration of OCT461201 in the blood and urine, how this changes over a period of time and to evaluate whether there are differences in the concentrations when different dose strengths are given.

Who can participate?
Healthy adult males or females aged between 18 and 55 years

What does the study involve?
The study will consist of a screening visit (between 35 and 2 days before the dose), one treatment period (consisting of 3 days with 2 overnight stays), a single return visit on Day 3, and a post-study follow-up visit 4-8 days after the dose of OCT461201 on Day 1.

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.

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. The placement of an indwelling catheter is proposed 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.

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 before 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.

Harm to the unborn child:
The treatment might harm the unborn child; therefore, volunteers who are pregnant, breast-feeding or who intend to become pregnant 95 days following the dose of OCT461201, will not be eligible to take part. For male participants (of childbearing potential), they will be required to use a highly effective method of contraception (in addition to a condom) with their partner (of childbearing potential) from the point of the dose of OCT461201 until at least 95 days following the dose of OCT461201.
For female participants (of childbearing potential) a negative pregnancy result must be obtained before the start of the study. They will be required to use a highly effective method of contraception (in addition to a condom) with their partner (of childbearing potential) from the point of screening until at least 95 days following the dose of OCT461201.
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 are trained and certified in Advanced Life Support Procedures to deal with a medical emergency. Nurses and other clinical staff are also trained in emergency procedures. Simbec-Orion also has an agreement with Prince Charles Hospital for the referral of participants if required following a medical emergency.

Where is the study run from?
Simbec-Orion Clinical Pharmacology Unit (UK)

When is the study starting and how long is it expected to run for?
July 2022 to August 2023

Who is funding the study?
Oxford Cannabinoid Technologies, Ltd (UK)

Who is the main contact?
Valentino Parravicini, valentino@oxcantech.com

Contact information

Type(s)
Scientific

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Type(s)
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Additional identifiers

Clinical Trials Information System (CTIS)
2022-003422-41

Integrated Research Application System (IRAS)
1006789

Protocol serial number
OCT-001-2023

Study information

Scientific Title
A Phase I, first-in-human, randomised, double-blind, placebo-controlled, single ascending oral dose, safety, tolerability and pharmacokinetic study to investigate the effects of OCT461201 in healthy volunteers

Acronym
OCT-001-2023

Study objectives
The primary objective of this study is:
1. To assess the safety and tolerability of single ascending oral doses of OCT461201 in healthy participants.

The secondary objective of this study is:
1. To characterise the pharmacokinetics (PK) of single doses of OCT461201 in healthy participants.

Ethics approval required
Old ethics approval format

Ethics approval(s)
1. Approved 29/03/2023, Wales Research Ethics Committee 2 (Health and Care Research Wales, Castlebridge 4, 15-19 Cowbridge Road East, Cardiff, CF11 9AB, UK; +44 2920 230457; Wales.REC2@wales.nhs.uk), ref: 23/WA/0001
2. Approved 16/05/2023, MHRA (10 South Colonnade, Canary Wharf, London, E14 4PU, UK; +44 (0) 20 3080 6000; info@mhra.gov.uk), ref: CTA 57516/0001/001-0001

The HRA has approved deferral of publication of trial details.

Primary study design
Interventional

Study design
Interventional randomized controlled trial

Study type(s)
Other, Safety

Health condition(s) or problem(s) studied

Healthy volunteers

Interventions
The study will consist of up to 32 participants split into 4 planned cohorts: each cohort investigating a different dose strength of OCT461201 starting at the lowest dose and gradually increasing in each cohort.

Within each cohort, participants will be randomised to receive OCT461201 capsules or a matching placebo (in a 3:1 ratio) with a single dose administered on Day 1. Each cohort will follow a dose leader schedule, whereby 2 participants (1 active, 1 placebo) will be dosed a minimum of 24 hours prior to the remaining participants in the cohort. Between each cohort, safety and PK data will be evaluated by a Dose Escalation Review Committee (DERC) to determine whether it is appropriate to dose escalate into the next cohort.

The study will consist of a screening visit (between 35 and 2 days prior to dose), one treatment period (consisting of 3 days with 2 overnight stays), a single return visit on Day 3 and a post-study follow-up visit 4-8 days after the dose of OCT461201 on Day 1.

The study end is defined as last subject last visit. The study will take place in the Clinical Unit of Simbec-Orion Clinical Pharmacology (Clinical Unit) under full medical and nursing supervision.

Intervention Type
Drug

Phase
Phase I

Drug/device/biological/vaccine name(s)
OCT461201

Primary outcome(s)
The primary endpoints for this study are safety endpoints and are defined as follows:
1. Adverse events (AEs) will be recorded from the point of informed consent up to the final post-study follow-up visit
2. Laboratory safety (biochemistry, haematology and urinalysis) at Screening, Day -1, Day 2, and post-study follow-up visit on Days 5-9
3. Vital signs (systolic/diastolic blood pressure, heart rate, respiratory rate, oral body temperature) at Screening, Day -1, Day 1 (pre-dose, 1 h, 2 h, 4 h, 8 h, 12 h post-dose), Day 2 (24 h post-dose) and post-study follow-up visit on Day 5-9
4. 12-lead ECG (heart rate, PR interval, QRS duration, QT interval and QTcF interval) at Screening, Day -1, Day 1 (pre-dose, 1 h, 2 h, 4 h, 8 h, 12 h post-dose), Day 2 (24 h post-dose) and post-study follow-up visit on Day 5-9

Key secondary outcome(s)
The secondary endpoints for this study are PK parameters derived from the analysis of plasma and urine samples for concentrations of OCT461201. PK endpoints are defined as follows:

Plasma:
1. Cmax - Maximum concentration.
2. Tmax - The time to maximum observed concentration
3. λz - Elimination rate constant

4. t1/2 - Terminal elimination half-life
5. AUClast - Area under the concentration-time curve (AUC) from the time of dosing to the time of the last measurable concentration
6. AUC0-t - AUC from the time of dosing to the last time of the measurable concentration
7. AUC0-inf - AUC extrapolated to infinity
8. AUC% extrapolated - Residual area
9. CL/F - Apparent total body clearance following extravascular administration
10. Vz/F - Apparent volume of distribution following extravascular administration
Measured using blood samples taken on Day 1: Pre-dose, 0.25, 0.5, 1, 1.5, 2, 3, 4, 6, 8, 12, 16, 24 and 48 hours post-dose

For urine:
1. Ae - Amount and cumulative amount of dose excreted in urine over each collection interval
2. Ae% - % and cumulative % of dose excreted in urine over each collection interval
3. CLR - Renal clearance
Measured using urine samples taken on Day 1: Pre-dose, 0-12 hours post-dose and 12-24 hours post-dose

Completion date
31/08/2023

Eligibility

Key inclusion criteria
1. Healthy male and female participants, between 18 and 55 years of age, inclusive, at the time of screening
2. Participant with a body mass index (BMI) of 18-30 kg/m2

Participant type(s)
Healthy volunteer

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 Years

Upper age limit
55 Years

Sex
All

Total final enrolment
32

Key exclusion criteria

1. History of clinically significant neurological illnesses, head traumas or metabolic disorders.
2. Reports having experienced suicidal ideation (Type 4 or 5 on the Columbia-Suicide Severity Rating Scale [C-SSRS]) within 35 days prior to Screening, any suicidal behaviour within 2 years prior to Screening (Any “Yes” answers on the Suicidal Behaviour section of C-SSRS), and/or the Investigator assesses the participant to be a safety risk to him/herself or others; in the last 2 years.
3. 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 30 days or five half-lives, whichever is longer, or exposure to more than four new chemical entities within 12 months before the first dose of IMP. (The 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).

Date of first enrolment
22/05/2023

Date of final enrolment
31/08/2023

Locations

Countries of recruitment
United Kingdom

Wales

Study participating centre
Simbec Research Limited
Simbec House Merthyr Tydfil Industrial Park
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Pentrebach
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CF48 4DR

Sponsor information

Organisation
Oxford Cannabinoids Technologies Ltd.

Funder(s)

Funder type
Industry

Funder Name
Oxford Cannabinoids Technologies Ltd.

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?
Basic results	version 2.0	21/05/2024	22/05/2024	No	No