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A study to assess the brain occupancy following a single dose of RO7268489 in healthy participants

Submission date 22/08/2023	**Recruitment status** No longer recruiting	[X] Prospectively registered [_] Protocol
Registration date 23/08/2023	**Overall study status** Completed	[_] Statistical analysis plan [_] Results
Last Edited 23/08/2023	**Condition category** Other	[_] Individual participant data [_] Record updated in last year

Plain English summary of protocol

Background and study aims
RO7268489 is an experimental new medicine. An experimental drug means that Health Authorities (like the U.S. Food and Drug Administration) have not yet approved RO7268489.

The purpose of this study to find out how quickly and to what extent RO7268489 goes to the brain, and how long it will stay in the brain. The study will also test what happens to RO7268489 once it is in the body, what RO7268489 does to the body and the safety of RO7268489 at different dose levels to find out what effects, good or bad, RO7268489 has on healthy participants.

RO7268489's location and movement within the body can be traced using the images (scans) that are taken with a method called positron emission tomography (PET). To make RO7268489 visible on the scans, it will be given with a radioactive medicine used with PET imaging (tracer). The tracer will be given as a single injection directly into a vein before each of the 3 PET scans.

Who can participate?
Healthy participants between 18 - 55 years of age.

What does the study involve?
Participants will need to be a part of the study for about 8 to 14 weeks (including the screening period and the safety follow-up visit).

Screening period: Participants will be screened to check if they are eligible to participate in the study. Screening period will take place from 42 days to 2 days before the start of treatment.

In Clinic Period: Participants will have to get admitted to the clinic 1 day before the study treatment (RO7268489) administration and will have to stay for up to 3 days after receiving the study treatment. During this time participants will receive study treatment by mouth in the form of a capsule. Participants will also receive the tracer by injection before the PET scan.

Ambulatory Visit: Participants will have to revisit the clinic after getting discharged for check-ups and PET scans after the study treatment is completed. Ambulatory visits will occur from Day 4 up to Day 55 after the treatment administration.

Follow Visit: Participants' overall health and occurrence of any side effects will be assessed during a follow up visit that may take place between Day 14 to Day 56.

What are the possible benefits and risks of participating?
RO7268489 is an experimental drug and is being given purely for research purposes, it is not intended that participants will receive any benefit from this study But the information learned from this study may be useful to treat future patients.
Participants may have side effects from the drug or procedures used in this study, and they can be mild to severe, and they can vary from person to person.

Risks Associated with RO7268489:
RO7268489 has had limited testing in humans, there may potentially also be side effects that are not known at this time. The known side effects of this drug, as well as potential side effects are listed below. Allergic reactions on treatment with RO7268489, which can be in the form of itching, difficulty breathing, a rash, and/or drop in blood pressure.
There may be a risk in exposing an unborn child to study the drug, and all risks are not known at this time. Women who are pregnant, become pregnant, or who are currently breastfeeding, cannot participate in this study

Side Effects Associated with PET Tracer:
The tracer, is labelled with a radioactive substance. However, the dose used is very small and within acceptable limits.

Side Effects Associated with MRI Scan:
A magnetic resonance imaging (MRI) scan is a medical procedure using powerful magnets, radio waves, and a computer to make detailed images of the organs in the body so participants with an artificial heart valve, metal plate, pin, or other metallic objects in their body (including gunshot or shrapnel) may not be eligible. The risks or side effects associated with undergoing an MRI scan are minimal for most participants. MRI scanners are quite closed in and may be unpleasant for people who have a fear or strong dislike of enclosed spaces.

Where is the study run from?
F. Hoffman La Roche (Switzerland)

When is the study starting and how long is it expected to run for?
May 2023 to February 2024

Who is funding the study?
F. Hoffman La Roche (Switzerland)

Who is the main contact?
global-roche-genentech-trials@gene.com

Contact information

Type(s)
Public

Contact name
Dr Clinical Trial

Contact details
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Additional identifiers

Protocol serial number
BP44712

Study information

Scientific Title
A single-center, non-randomized, open-label, parallel group, adaptive, phase I positron emission tomography (PET) study to assess the brain occupancy following single oral doses of RO7268489 in healthy participants

Study objectives
The purpose of this study is to determine the effects of single oral doses of RO7268489 on brain occupancy using a positron emission tomography (PET) tracer and to characterize the relationship between RO7268489 plasma concentration and its brain occupancy in healthy participants.

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 07/08/2023, Advarra Institutional Review Board (6100 Merriweather Drive Suite 600, Columbia, MD 21044, United States of America; 410-884-2900; rebecca.forney@advarra.com), ref: Pro00073239

Primary study design
Interventional

Study design
Phase I non-randomized open-label single-center parallel group study

Study type(s)
Treatment

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

Interventions
RO7268489:
Participants will have a PET scan before dosing, and then receive a prespecified dose RO7268489, orally, on Day 1 followed by 2 post-dose PET scans. Participants will also receive a tracer, intravenously (IV) at the start of each PET scan. Based on the emergent data subsequent groups may be formed which may run parallel to each other.

Intervention Type
Drug

Phase
Phase I

Drug/device/biological/vaccine name(s)
RO7268489

Primary outcome(s)
1. Brain Occupancy Assessed Using PET Tracer from Day 1 up to Day 55
2. Relationship Between Exposure of RO7268489 in Plasma and Brain Occupancy Assessed Using Plasma Samples and PET Tracer from Day 1 up to Day 55

Key secondary outcome(s)
1. Number of Participants With Adverse Events Graded Using a 3-Point Scale (Mild, Moderate or Severe) from Screening up to Day 56
2. Number of Participants With Change in Suicide Risk Determined by the Columbia-Suicide Severity Rating Scale (C-SSRS) from Screening up to Day 56
3. Number of Participants With Change in Neuropsychiatric Symptoms Scores as Determined by the Brief Psychiatric Rating Scale (BPRS) from Screening up to Day 56
4. Plasma PK Parameters Of RO7268489 Using Standard Non-Compartmental Methods from Day 1 up to Day 56
5. RO7268489-related Change on Pharmacodynamics (PD) Biomarker From Samples Collected at Pre-dose and Multiple Timepoints Post-dose up to Day 56
6. RO7268489-related Change From Baseline on PD Biomarker From Samples Collected at Pre-dose and Multiple Timepoints Post-dose up to Day 56

Completion date
29/02/2024

Eligibility

Key inclusion criteria
1. Participants who are overtly healthy (defined by absence of evidence of any active or chronic disease).
2. Body mass index (BMI) of 18.5 to 30 kilogram per square meter (kg/m^2) inclusive.

Participant type(s)
Healthy volunteer

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 Years

Upper age limit
55 Years

Sex
All

Key exclusion criteria
1. History or evidence of any medical condition potentially altering the absorption, metabolism, or elimination of drugs. Surgical history of the gastrointestinal tract affecting gastric motility or altering the gastrointestinal tract (with the exception of uncomplicated appendectomy, cholecystectomy and hernia repair).
2. Confirmed (based on the average of 3 consecutive measurements) systolic blood pressure greater than 140 or less than 90 millimeters of mercury (mmHg) and diastolic blood pressure greater than 90 or less than 45 mmHg at screening
3. Confirmed (based on the average of 3 consecutive measurements) resting pulse rate greater than 90 or less than 40 beats per minute (BPM) at screening.
4. Participants who have a history of migraine.
5. Any clinically significant history of hypersensitivity (e.g., drugs, excipients) or allergic reactions.
6. Contradiction for arterial cannulation. Allen's test indicating potential risk in placement of the arterial cannula.
7. Participation in an investigational drug or device study within 90 days prior to dosing, as calculated from the day of follow-up from the previous study or within 30 days as assessed by the investigator
8. Participation in an investigational drug study involving any therapeutic monoclonal antibody, protein derived from a monoclonal antibody, immunoglobulin therapy, or vaccine within 6 months prior to dosing as calculated from the day of follow-up from the previous study
9. Participants who are pregnant, lactating, or breastfeeding.

Date of first enrolment
23/08/2023

Date of final enrolment
01/12/2023

Locations

Countries of recruitment
United States of America

Study participating centre
Invicro
60 Temple Street, Ste 8
New Haven

United States of America
CT 06510

Sponsor information

Organisation
F. Hoffmann-La Roche Ltd

Funder(s)

Funder type
Industry

Funder Name
F. Hoffmann-La Roche

Alternative Name(s)
Hoffman-La Roche, F. Hoffmann-La Roche Ltd.

Funding Body Type
Private sector organisation

Funding Body Subtype
For-profit companies (industry)

Location
Switzerland

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated during and/or analysed during the current study are not expected to be made available due to participant-level data not being a regulatory requirement.

IPD sharing plan summary
Not expected to be made available