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A study to assess the safety and tolerability of ACI-3024 and how the drug affects and interacts with the body

Submission date
01/03/2021

Recruitment status
No longer recruiting

Registration date
30/03/2021

Overall study status
Completed

Last Edited
01/04/2021

Condition category
Nervous System Diseases

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[ ] Results
[ ] Individual participant data
[ ] Record updated in last year

Plain English summary of protocol

Background and study aims
Alzheimer's disease is the most common cause of dementia. Dementia includes symptoms of memory loss and difficulties with thinking speed, understanding, judgement, or language. People with Alzheimer's disease may also experience changes in mood and difficulties doing daily activities.

ACI-3024 is an investigational drug developed against Alzheimer's disease. There are currently no effective treatments for this condition. It is hoped that the study drug will be more effective than the treatments currently available and have a positive impact for patients with Alzheimer's disease.

This study is the first time the study drug is being given to humans. The study aims to collect information the safety of the study drug and any side effects that may be associated with it; how much of the study drug and its breakdown products get into the bloodstream, urine, and the fluid of the brain and spinal cord; how food, sex, age, and ethnicity affect how the body breaks down and removes the study drug from the body; and how the study drug affects biomarkers of Alzheimer's disease in blood (a biomarker is something found in the blood, other body fluids, or body tissues that can be used to measure the progress of a disease or the effects of a treatment).

Who can participate?
Healthy volunteers aged between 20 and 80 years.

What does the study involve?
Up to 80 participants will be taking part in this study, which consists of 2 main parts. In part one, several cohorts of healthy volunteers will receive increasing doses of ACI-3024 on one single occasion. In part two, several cohorts of healthy volunteers will receive increasing doses of ACI-3024 for several days.

What are the possible benefits and risks of participating?
No benefits are expected from participation in the study.

The study drug may have side effects that are currently unknown. There is a remote chance that the study drug (and indeed any drug product) may cause an allergic reaction, which in some cases may be adverse. This is known as an anaphylactic reaction. Symptoms of an anaphylactic reaction include sudden shortness of breath, decreased consciousness, and rash. An anaphylactic reaction may require emergency treatment. In order to monitor participants' health during the study, regular checks of blood pressure, body temperature, and heart (by ECG) will be performed. Blood samples will be regularly taken to check the liver, kidney and other organs are functioning normally.

Where is the study run from?
Covance Clinical Research Unit Ltd (UK)

When is the study starting and how long is it expected to run for?
From February 2019 to August 2020

Who is funding the study?
AC Immune (Switzerland

Who is the main contact?
clinicaltrials@acimmune.com

Contact information

Type(s)
Scientific

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Clinical Trials Information System (CTIS)
2019-001567-73

Protocol serial number
ACI-3024-1901

Study information

Scientific Title
A first-in-human, randomized, placebo-controlled, double-blind, sequential single and multiple ascending dose (SAD/MAD) study with open-label food effect and pharmacodynamic assessment arms to assess the safety, tolerability, pharmacokinetics, and pharmacodynamics of ACI-3024

Acronym
ACI-3024-1901

Study objectives
To assess the safety, tolerability, pharmacokinetics, and pharmacodynamics of ACI-3024

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved 31/05/2019, London - Brent Research Ethics Committee (80 London Road, Skipton House, London, SE1 6LH; +44 (0)20 7104 8222; nrescommittee.london-brent@nhs.net), ref: 19 /LO/0617

Primary study design
Interventional

Study design
Double-blind randomized placebo-controlled sequential single dose and multiple ascending dose (SAD/MAD) study

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Alzheimer Disease

Interventions
Participants will be randomly allocated to one of the 4 arms of the study:
1. Single ascending doses oral intake with ACI-3024
2. Single dose oral intake with placebo
3. Multiple ascending doses oral intake with ACI-3024
4. Multiple doses oral intake with placebo

The study is made of 2 subsequent parts.

In part 1, the single ascending dose part, 5 cohorts of 8 subjects will participate. In each cohort, subjects will be randomly assigned to the active (ACI-3024, 6 subjects) or placebo arm (2 subjects). Doses of ACI-3024 will be increasing doses. Participants will swallow a suspension of ACI-3024 or placebo (liquid used for suspension) once during their participation.

In part 2, the multiple ascending dose part, 4 cohorts of 10 subjects will participate. In each cohort, subjects will be randomly assigned to the active (ACI-3024, 8 subjects) or placebo arm (2 subjects). Doses of ACI-3024 will be using doses already tested in part 1. Participants will swallow a suspension of ACI-3024 or placebo (liquid used for suspension) once or twice a day during 14 days

Intervention Type
Drug

Phase
Phase I

Drug/device/biological/vaccine name(s)
ACI-3024

Primary outcome(s)
Safety/tolerability measured using Adverse events (AEs), physical and neurological examinations, vital signs measurements, 12 lead electrocardiogram parameters, incidence of laboratory abnormalities, and MRI in multiple ascending dose cohorts over 37 days (SAD part) or 70 Days (MAD part)

Key secondary outcome(s)
Pharmacokinetics (PK) measured using levels of ACI-3024 in plasma, urine, and cerebrospinal fluid (CSF) by liquid chromatography over 7 days (SAD part) or 28 Days (MAD part)

Completion date
24/08/2020

Eligibility

Key inclusion criteria
1. Aged 20 to 59 years inclusive (non-elderly participants), or 60 to 80 years inclusive (elderly participants)

Non-Japanese participants:
1. Body mass index between 18.0 and 30.0 kg/m²
2. Body weight between 50 and 100 kg (males) or between 45 and 80 kg (females)

Japanese participants:
1. First-generation Japanese subjects (biological parents and all biological grandparents are of exclusively Japanese descent and were born in Japan)
2. Body mass index between 17.0 and 30.0 kg/m²
3. Body weight between 45 and 100 kg (males) or between 40 and 80 kg (females)

Participant type(s)
Healthy volunteer

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 Years

Sex
All

Total final enrolment
80

Key exclusion criteria
1. History of, or current: liver or renal insufficiency; clinically significant cardiac, vascular, pulmonary, gastrointestinal, endocrine, neurologic, rheumatologic, psychiatric or metabolic disturbances; any inflammatory illness; or any other illness that the investigator considers should exclude the subject and which may interfere with the study assessments
2. History of significant hypersensitivity, intolerance, or allergy to any drug compound, food, or other substance, unless approved by the investigator

MAD cohorts only:
1. Lifetime history of suicide attempt (including an active attempt, interrupted attempt, or aborted attempt), or has suicidal ideation in the past 6 months according to the Columbia Suicide Severity Rating Scale (C-SSRS) at screening
2. Screening brain MRI scan that shows evidence of significant abnormality that would suggest a clinically significant finding that may impact the subject's ability to safely participate in the study, in the opinion of the investigator
3. History of alcoholism or drug/chemical abuse within 2 years prior to screening.
4. Positive alcohol breath test result or positive urine drug screen (confirmed by repeat) at screening or check in
5. History of human immunodeficiency virus (HIV) antibody positive or tests positive for HIV at screening
6. History of hepatitis B surface antigen (HBsAg) or hepatitis C antibody (anti-hepatitis C virus) positive, or positive hepatitis panel at screening
7. Positive pregnancy test result at screening or check in
8. Clinically significant impaired hepatic function at screening or check in , defined as either of the following (confirmed by repeat):
8.1. Serum ALT or AST >1.25 × upper limit of normal

8.2. Total bilirubin >1.5 × upper limit of normal
9. Serum albumin or total plasma protein outside of the clinical reference range for the testing laboratory at screening or check in
10. Creatinine clearance <60 ml/min as assessed by the Cockcroft-Gault equation

Participants undergoing MRI (MAD part):
1. Have any contraindications for MRI studies, including claustrophobia, or the presence of metal (ferromagnetic) implants, or a cardiac pacemaker

Date of first enrolment
20/06/2019

Date of final enrolment
04/03/2020

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
Covance Clinical Research Unit Ltd
Springfield House
Hyde Street
Leeds
United Kingdom
LS2 9LH

Sponsor information

Organisation
AC Immune (Switzerland)

ROR
https://ror.org/00e8cky09

Funder(s)

Funder type
Industry

Funder Name
AC Immune

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 as the study is an early phase study and results are not planned to be disseminated.

IPD sharing plan summary
Not expected to be made available

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
HRA research summary			26/07/2023	No	No