

An early-phase clinical study to provide early data on an inhibitor/blocker of an important part of the immune system in the lung

Submission date 09/11/2022	Recruitment status No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
Registration date 21/12/2022	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
Last Edited 20/09/2023	Condition category Respiratory	<input type="checkbox"/> Individual participant data <input type="checkbox"/> Record updated in last year

Plain English summary of protocol

Background and study aims

Interstitial lung disease (ILD) is an umbrella term used for a large group of diseases that cause scarring (fibrosis) in the lungs, inflammation in the lungs, or a mixture of both. The scarring causes stiffness in the lungs which makes it difficult to breathe and get oxygen to the bloodstream.

As there are more than 100 different types of ILD, it is difficult to monitor and treat these conditions effectively. Currently, the diagnosis of conditions involving fibrosis/scarring relies on a number of different measures, including lung biopsy, and available treatments following diagnosis are often limited. New potential drugs are in development to treat fibrotic conditions but in order for them to work effectively, we need to better understand how this process works and be able to see the effects treatments are having directly in the lungs of patients.

In the lung, ILD has also been associated with higher levels of certain types of immune cells (alveolar macrophages). Normally, these immune cells are important in keeping the lungs free of pollutants and infection but in a large number of ILD cases, they can become 'over-active' and result in scarring. Developing treatments that target these immune cells could help to reverse or slow the rate of ILD progression.

Who can participate?

Adult patients with a diagnosis of suspected or confirmed ILD or bronchiectasis

What does the study involve?

This study involves a new compound that has been shown to dampen down the activity of these particular immune cells outside of the body. The next step is to find out if small amounts of this compound target these cells in the lung. This liquid compound will be delivered into the lung during a routine bronchoscopy procedure and small amounts of lung fluid or samples will be taken to assess if it is having an effect on the immune cells.

What are the possible benefits and risks of participating?

While there will be no direct benefit to the patient, we are testing this new compound to see if it has an effect on certain immune cells that are key to the progression of inflammation in the lung. The information we gain from this study will help us improve our understanding and treatment of inflammatory lung diseases.

Where is the study run from?

The Queen's Medical Research Institute, The University of Edinburgh (UK)

When is the study starting and how long is it expected to run for?

June 2022 to September 2024

Who is funding the study?

Adiso Therapeutics (USA)

Who is the main contact?

Dr Annya Bruce, annya.bruce@ed.ac.uk (UK)

Study website

<https://www.tht.ac.uk/>

Contact information

Type(s)

Scientific

Contact name

Dr Annya Bruce

Contact details

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Additional identifiers

EudraCT/CTIS number

Nil known

IRAS number

318427

ClinicalTrials.gov number

Nil known

Secondary identifying numbers

Study information

Scientific Title

Micro: A phase 0 experimental medicine study to provide early mechanistic data in humans of NLRP3/1 inflammasome inhibition after direct intrapulmonary dosing of ADS032.

Acronym

MICRO

Study objectives

This study seeks to test the hypotheses that a novel clinical investigational agent (CIA) can attenuate alveolar macrophage (AM) inflammasome activity. This study specifically asks the question:

In treatment-naive patients with confirmed or suspected interstitial lung disease (ILD) (which includes sarcoidosis), and in patients with bronchiectasis, can this compound that is delivered to the distal lung, attenuate IL-1 β secretion and other markers of inflammasome activity in AMs retrieved from bronchoalveolar lavage (BAL)?

Ethics approval required

Ethics approval required

Ethics approval(s)

Approved 27/04/2023, South Central - Oxford B Research Ethics Committee (Temple Quay House, 2 The Square, Bristol , BS1 6PN, United Kingdom; +44 207 104 8241; oxfordb.rec@hra.nhs.uk), ref: 23/SC/0077

Study design

Exploratory non-randomized phase 0 experimental medicine study

Primary study design

Interventional

Secondary study design

Non randomised study

Study setting(s)

Hospital

Study type(s)

Other

Participant information sheet

Not available in web format, please use the contact details to request a patient information sheet.

Health condition(s) or problem(s) studied

Interstitial lung disease or bronchiectasis

Interventions

This study seeks to test the hypotheses that a novel Clinical Investigational Agent (CIA), ADS032, can attenuate alveolar macrophage inflammasome activity in the human lung. ADS032 will be microdosed into the distal lung during a bronchoscopy procedure. Up to 100 µg of ADS032 (approximately 1.5 ml) will be delivered into the distal lung using a medically approved catheter. This can be administered as single or smaller divided doses. Lung fluid samples and blood will be taken either before, during or after the procedure. Patients will be reviewed at 4 hours and their participation in the study will end at 24 hours post-procedure.

Group 1: Patients with suspected or confirmed Interstitial lung disease (ILD) or bronchiectasis will receive a microdose of the inflammasome inhibitor ADS032. Patients will also receive the equivalent regime of saline to enable them to act as their own control when samples are compared.

Group 2: Patients undergoing surgical resection of the lung will receive a microdose of ADS032.

Intervention Type

Drug

Pharmaceutical study type(s)

Pharmacokinetic, Pharmacodynamic

Phase

Phase 0

Drug/device/biological/vaccine name(s)

ADS032

Primary outcome measure

To evaluate early mechanistic data following administration of ADS032 assessed by measuring key inflammatory cytokine levels in the lung fluid of suspected or confirmed ILD patient groups measured using a variety of laboratory techniques, for example, ELISA at a single time point post the bronchoscopy

Secondary outcome measures

1. Key exploratory biomarkers and their response will be evaluated (e.g. cytokines, chemokines, cell surface markers) will be measured using a variety of laboratory techniques immediately before the procedure and following the administration of ADS032 at a single time point post bronchoscopy
2. Pharmacokinetics parameters (e.g. quantification) of ADS0132 in blood and urine measured using standard laboratory techniques immediately before the procedure and 4 hours post procedure

Overall study start date

01/06/2022

Completion date

01/09/2024

Eligibility

Key inclusion criteria

1. Provision of informed consent
2. Aged at least 18 years old and over
3. Diagnosis of suspected or confirmed ILD or bronchiectasis (Group 1) and ability to have a bronchoscopy
4. Patient undergoing surgical resection of lung for a suspected inflammatory, fibrotic or malignant process (Group 2)
5. Is not participating in a Clinical Trial of an Investigational Medicinal Product (CTIMP)

Participant type(s)

Patient

Age group

Adult

Lower age limit

18 Years

Sex

Both

Target number of participants

Up to 20

Key exclusion criteria

1. Pregnant or breastfeeding
2. Known hypersensitivity to ADS032
3. In the Investigator's opinion, the patient is unwilling or unable to undergo a bronchoscopy, laboratory tests or other study procedures
4. ILD and bronchiectasis patients receiving steroids or other immunomodulators (defined as any drugs that may suppress the immune system - azathioprine, mycophenolate, ongoing chemotherapy, macrolide antibiotics)
5. Already participated in Group 1 of this study

Date of first enrolment

15/09/2023

Date of final enrolment

01/06/2024

Locations**Countries of recruitment**

Scotland

United Kingdom

Study participating centre

Royal Infirmary of Edinburgh at Little France

51 Little France Crescent
Old Dalkeith Road
Edinburgh
Lothian
United Kingdom
EH16 4SA

Sponsor information

Organisation

Accord (United Kingdom)

Sponsor details

University of Edinburgh and NHS Lothian
Queen's Medical Research Institute
47 Little France Crescent
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Sponsor type

University/education

Website

<https://www.accord.scot/>

ROR

<https://ror.org/01x6s1m65>

Funder(s)

Funder type

Industry

Funder Name

Adiso Therapeutics

Results and Publications

Publication and dissemination plan

Planned publication in a high-impact peer-reviewed journal

Intention to publish date

01/12/2024

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

Stored in non-publicly available repository

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
HRA research summary			20/09/2023	No	No