ForPatients
by Roche

Systemic Lupus Erythematosus

A clinical trial to look at how safe different doses of RO7507062 are in people with systemic lupus erythematosus and how the body processes this drug

A First-in-Human Study to Investigate the Safety, Tolerability, Pharmacokinetics and Pharmacodynamics of RO7507062 in Participants With Systemic Lupus Erythematosus

Trial Status	Trial Runs In	Trial Identifier
Recruiting	13 Countries	NCT05835986 2022-502632-39-00 BP44315

The information is taken directly from public registry websites such as ClinicalTrials.gov, EuClinicalTrials.eu, ISRCTN.com, etc., and has not been edited.

Official Title:

An Open-label, Multicenter, Dose Escalation, First-in-Human Study to Investigate the Safety, Tolerability, Pharmacokinetics and Pharmacodynamics of Subcutaneously Administered RO7507062 in Participants With Systemic Lupus Erythematosus

Trial Summary:

The purpose of this study is to investigate the safety, tolerability, pharmacokinetics (PK) and pharmacodynamics (PD) of RO7507062 in participants with systemic lupus erythematosus (SLE). The study will have 2 parts: Part 1 is a single ascending dose-finding (SAD) part and Part 2 is a dose escalation with fractionated dosing part.

Hoffmann-La Roche	Phase 1
Sponsor	Phase

NCT05835986 2022-502632-39-00 BP44315
Trial Identifiers

Eligibility Criteria:

Gender	Age	Healthy Volunteers
All	#18 Years & # 70 Years	No

1. Why is the BP44315 clinical trial needed?

Systemic lupus erythematosus (SLE) is an autoimmune disease, which means the immune system attacks the body by mistake. This causes damage and inflammation and can affect the joints, skin, brain, lungs, kidneys and blood vessels. In SLE, a type of cell of the immune system called B cells produce antibodies (blood proteins normally made to help defend the body against infection) that attack the body (also known as 'autoantibodies'). SLE is a 'relapsing remitting' disease. Symptoms flare up when SLE is in an 'active' state when more autoantibodies may be produced (also known as 'relapsing'). Symptoms reduce when SLE is not active (known as 'remitting'). Standard treatment aims to reduce inflammation and suppress the immune system and includes steroids, hydroxychloroquine and immunosuppressants such as mycophenolate mofetil (MMF), azathioprine, methotrexate or cyclophosphamide. Antibody therapies called anifrolumab and belimumab have been approved for people with SLE who are taking standard treatment.

Despite treatments being available, people with SLE are more likely to have health conditions, such as heart disease, than healthy people. Some people have unacceptable side effects to treatment, or treatment may stop working (known as 'refractory' disease). New treatments for SLE are needed.

RO7507062 is a drug designed to remove B-cells in people with SLE. RO7507062 is an experimental drug - health authorities have not approved it as a treatment for SLE. This clinical trial aims to test different doses of RO7507062 to determine how safe the treatment is, and to understand how the body processes RO7507062.

2. How does the BP44315 clinical trial work?

This clinical trial is recruiting people living with SLE. People can take part if they have SLE autoantibodies and 'active' SLE. This trial is divided into two parts, Part 1 and Part 2. People (participants) who join the first part of this clinical trial (Part 1) will be given a single dose of the trial drug RO7507062 and those who join the second part of this trial (Part 2) will be given two doses one week apart. Participants will stay in the hospital and have assessments six times on the day that RO7507062 is given, then daily for at least 3 days. After this, participants can leave the hospital and will either be seen or telephoned by the clinical trial doctor regularly. This will be once a week during the first month, then monthly for 5 months, then every 3 months until about 1 year after the first RO7507062 dose. These checks are to see how participants respond to the treatment, if there are changes in B cell levels in the blood and to monitor for any side effects the participants may experience; some of the later checks may be done by telephone. The total time in the clinical trial is expected to be just over 1 year (13 months). If the B cell level in the blood is still low at the 1-year visit, the participant will be checked every 6 months until their B cell level becomes normal. Participants can stop trial treatment and leave the trial at any time.

3. What are the main endpoints of the BP44315 clinical trial?

The main clinical trial endpoints (the main results measured in the trial to see if the drug has worked) are, with different doses of RO7507062:

- The number and seriousness of any side effects
- The type of side effects, and
- How often side effects occur.

Other clinical trial endpoints include how the body processes RO7507062.

4. Who can take part in this clinical trial?

People can take part in this trial if they are between 18 and 70 years old and have been diagnosed with SLE for at least 6 months.

People may not be able to take part in this trial if they have:

- Nerve or brain conditions (such as meningitis) or other severe conditions due to SLE
- Previously received certain treatments, including certain immunosuppressants or B-cell antibody therapies within 6 months of or during the screening period
- Certain other medical conditions such as other autoimmune diseases, infections, chronic obstructive pulmonary disease, cancer within the last 5 years, pregnancy or breastfeeding, or people planning to conceive during or shortly after the trial (within 3 months after the final dose of RO7507062).

5. What treatment will participants be given in this clinical trial?

Participants will be given either one or two doses of **RO7507062** as an injection under the skin (subcutaneous injection) of the stomach area – groups of people will be given different doses of **RO7507062** so that doctors can understand more about the safest and most effective dose to give. This is an open-label trial, which means everyone involved, including the participant and the clinical trial doctor, will know the clinical trial treatment the participant has been given. If a participant experiences a potential side effect called ‘cytokine release syndrome’ (when the body’s immune cells are activated and release large amounts of inflammatory substances throughout the body), they may receive another medicine called tocilizumab.

6. Are there any risks or benefits in taking part in this clinical trial?

The safety or effectiveness of the experimental treatment or use may not be fully known at the time of the trial. Most trials involve some risks to the participant. However, it may not be greater than the risks related to routine medical care or the natural progression of the health condition. People who would like to participate will be told about any risks and benefits of taking part in the clinical trial, as well as any additional procedures, tests, or assessments they will be asked to undergo. All of these will be described in an informed consent document (a document that provides people with the information they need to decide to volunteer for the clinical trial).

Risks associated with the clinical trial drugs

Participants may have side effects (an unwanted effect of a medical treatment) from the drugs used in this clinical trial. Side effects can be mild to severe, even life-threatening, and vary from person to person. Participants will be closely monitored during the clinical trial; safety assessments will be performed regularly. **RO7507062** has not yet been tested in humans. For this reason, this drug's side effects are not known now. **RO7507062** will be given as a subcutaneous injection and participants will be told about any known side effects of subcutaneous injections. Participants will be told about the known side effects of **tocilizumab** and possible side effects based on human and laboratory studies or knowledge of similar drugs. **Tocilizumab** (if required) will be given as an infusion into a vein (intravenous infusion). Participants will be told about any known side effects of intravenous infusion.

Potential benefits associated with the clinical trial

Participants' health may or may not improve from participation in the clinical trial. Still, the information collected may help other people with similar medical conditions in the future.

For more information about this clinical trial see the For Expert tab on the specific ForPatients page or follow this link to ClinicalTrials.gov

Inclusion Criteria:

- Participants must have a diagnosis of SLE according to the 2019 European League Against Rheumatism (EULAR) or American College of Rheumatology (ACR) Classification Criteria at least 24 weeks prior to Screening and must have been treated for SLE according to standard clinical practice.
- Presence of anti-double stranded DNA (dsDNA), anti-Smith (Sm), anti-ribonucleoprotein (RNP) or anti-Sjögren's syndrome antigen A (SS-A) above the upper limit of normal (ULN); or, positive anti-nuclear antibody (ANA; # 1:160).
- Active SLE disease, as demonstrated by the Systemic Lupus Erythematosus Disease Activity Index 2000 (SLEDAI-2K) total score of #4 with at least 1 positive clinical.
- For participants receiving oral corticosteroids (OCS), treatment with # 20 milligram per day (mg/day) prednisone or equivalent, during Screening, at a dose that has been stable for at least 7 days prior to Day 1.

- For participants receiving conventional immunosuppressants (e.g., azathioprine, sulfasalazine, mycophenolate mofetil [# 3.0 grams per day], mycophenolic acid [# 3 grams per day], methotrexate [oral, SC, or intramuscular routes]), and calcineurin inhibitors [oral]), treatment should be at a stable dose for at least 6 weeks prior to Screening and during Screening and expected to remain stable during the study.
- For transitioning participants, stable hormonal therapy 3-6 months prior to screening.

Exclusion Criteria:

- Active or unstable lupus-associated neuropsychiatric disease.
- Catastrophic or severe antiphospholipid syndrome within 12 months prior to Screening or during Screening.
- Presence of severe lupus-associated renal disease that is likely to require treatment with protocol-prohibited therapies.
- Organ-threatening SLE manifestations (e.g., active myocarditis) considered to be severe by the Investigator.
- Severe active systemic autoimmune disease other than SLE.
- Active infection of any kind, excluding fungal infection of the nail beds.
- History of serious recurrent or chronic infection, especially; recurring, chronic infections specifically related to respiratory issues.
- Moderate or severe chronic obstructive pulmonary disease (COPD).
- History of progressive multifocal leukoencephalopathy (PML).
- History of macrophage-activation syndrome and/or hemophagocytic lymphohistiocytosis.
- History of cancer, including solid tumors, hematological malignancies, and carcinoma in situ, within the past 5 years (with the exception of basal cell carcinoma, non melanoma skin cancer, and cervical cancer in situ, if these have been adequately treated and are considered cured).
- Intolerance or contraindication to study therapies including history of severe allergic or anaphylactic reactions to monoclonal antibodies (mAbs) or known hypersensitivity to any component of the RO7507062 injection.
- History of infection with hepatitis B virus (HBV), or positive serology indicative of current or past HBV infection.
- Human immunodeficiency virus (HIV; positive HIV antibody test) and active hepatitis C virus (HCV) infection (detectable HCV ribonucleic acid [RNA]).
- Active cytomegalovirus (CMV) or Epstein-Barr virus (EBV) infection.
- Receipt of any anti- cluster of differentiation (CD)19 or anti-CD20 therapy such as blinatumomab, obinutuzumab, rituximab, ocrelizumab, or ofatumumab less than 6 months prior to screening or during screening.
- Receipt of Inhibitors of Janus kinase (JAK), Bruton tyrosine kinase, or tyrosine kinase 2 including baricitinib, tofacitinib, upadacitinib, filgotinib, ibrutinib, and fenebrutinib,or any investigational agent within 30 days prior to screening or during screening.
- Receipt of Cyclophosphamide or a biologic therapy such as, but not limited to, adalimumab, etanercept, golimumab, infliximab, belimumab,ustekinumab, anifrolumab, secukinumab, or atacicept, within 4 weeks prior to enrollment.
- Active tuberculosis or history of recurring or severe active tuberculosis, or a positive Interferon Gamma Release Assay (IGRA). Latent tuberculosis which has been treated prior to baseline is not exclusive.
- Receipt of an investigational therapy (except severe acute respiratory syndrome coronavirus 2 [SARS-CoV-2] vaccines) within 30 days or 5 drug-elimination half-lives (whichever is longer) prior to initiation of study treatment and during the study.
- Immunoglobulin (IgG) level of <6 gram per liter (g/L).
- Estimated glomerular filtration rate (eGFR) <45 milliliter per minute (mL/min)/1.73-meter square (m^2).