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Study to evaluate the efficacy, pharmacokinetics, safety, and immunogenicity of subcutaneously administered ustekinumab or guselkumab in pediatric participants with active juvenile psoriatic arthritis

Submission date 20/09/2022	**Recruitment status** No longer recruiting	[_] Prospectively registered [_] Protocol [_] Statistical analysis plan [_] Results [_] Individual participant data [_] Record updated in last year
Registration date 11/10/2023	**Overall study status** Completed	
Last Edited 02/11/2023	**Condition category** Skin and Connective Tissue Diseases	

Plain English summary of protocol

Background and study aims
Juvenile psoriatic arthritis (jPsA) is a type of arthritis that affects children and is characterized by severe joint inflammation (irritation and swelling) which can last for months and years.

Ustekinumab (study drug) is a medicine that binds to both human interleukin (IL)-12 and IL-23 and guselkumab binds to IL-23 and blocks its activity. By blocking the effects of IL-12 and/or IL-23, inflammation is reduced thus preventing disease from getting worse.

Who can participate?
This study will include participants of 5 to <18 years with active jPsA.

What does the study involve?
This study will include:
1. Screening period (up to 6 weeks)
2. Treatment period (up to 52 weeks):
• Cohort 1: Participants will receive a weight-based dose of ustekinumab subcutaneously* (SC) at Week 0, Week 4 and then every 12 weeks up to Week 52.
• Cohort 2: Participants will receive guselkumab SC at Weeks 0 and 4 followed by either every 4 weeks (Q4W) (with historical radiographic evidence of joint damage) or every 8 weeks (Q8W) (without historical evidence of joint damage) dosing with the last dose at Week 52. Participants at high risk of joint damage can also be considered for Q4W dosing per investigator.
*Under the skin.
3. Safety follow-up period (at Week 68)
4. Long-Term Extension (LTE): Participants in both ustekinumab and guselkumab cohorts who

complete the Week 52 evaluations, will have the option to enter a separate ustekinumab (CNTO1275ISD3001) or guselkumab (CNTO1959ISD3001) LTE study at Week 52, if the entry criteria for LTE are met.

Participants will undergo study assessments and tests, such as joint and skin exams, blood tests and questionnaires. Blood samples will be taken at multiple timepoints to understand how the body responds to treatment. All side effects will be recorded till study ends.

The overall duration of this study will be up to 1 year 4 months.

What are the possible benefits and risks of participating?
There is no established benefit to participants of this study. Based on scientific theory, administering ustekinumab and/or guselkumab to a patient may improve juvenile psoriatic arthritis (jPsA). However, this cannot be guaranteed because ustekinumab and guselkumab are still under investigation as treatment and it is not known whether ustekinumab or guselkumab will work.
Participants may experience some benefit from participation in the study that is not due to receiving study drug, but due to regular visits and assessments monitoring overall health. Participation may help other people with jPsA in the future.
Participants may have side effects from the drugs or procedures used in this study that may be mild to severe and even life-threatening, and they can vary from person to person. The most common, known risks are getting symptoms such as clinical worsening of jPsA, serious infection, hypersensitivity reaction including serious hypersensitivity reaction, malignancy, immunosuppression, liver injury (only for guselkumab) after getting the study drug. The participant information sheet and informed consent form, which will be signed by every participant agreeing to participate in the study, includes a detailed section outlining the known risks to participating in the study.
Not all possible side effects and risks related to ustekinumab and guselkumab are known at this moment. During the study, the sponsor may learn new information about ustekinumab and guselkumab. The study doctor will tell participants as soon as possible about any new information that might make them change their mind about being in the study, such as new risks.
To minimize the risk associated with taking part in the study, participants are frequently assessed for any side effects and other medical events. Participants are educated to report any such events to the study doctor who will provide appropriate medical care.
Any serious side effects that are reported to the sponsor are thoroughly reviewed by a specialist drug safety team.
There are no costs to participants to be in the study. The sponsor will pay for the study drug and tests that are part of the study. The participant will receive reasonable reimbursement for study-related costs (e.g., travel/parking costs).

Where is the study run from?
Janssen-Cilag International NV (Netherlands)

When is the study starting and how long is it expected to run for?
August 2022 to September 2025

Who is funding the study?
Janssen-Cilag International NV (Netherlands)

Who is the main contact?
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Scientific

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Additional identifiers

ClinicalTrials.gov (NCT)
NCT05083182

Clinical Trials Information System (CTIS)
2020-005503-40

Integrated Research Application System (IRAS)
1005896

Central Portfolio Management System (CPMS)
53232

Protocol serial number
CNTO1275JPA3001

Study information

Scientific Title
A phase 3 multicenter, open-label study to evaluate the efficacy, pharmacokinetics, safety, and immunogenicity of subcutaneously administered ustekinumab or guselkumab in pediatric participants with active juvenile psoriatic arthritis (PSUMMIT-Jr)

Acronym
PSUMMIT-Jr

Study objectives
Primary objectives:
1. Evaluate PK of ustekinumab and guselkumab in jPsA
2. Evaluate efficacy of ustekinumab and guselkumab in jPsA

Secondary objectives:
1. Evaluate PK of ustekinumab and guselkumab in jPsA
2. Evaluate efficacy of ustekinumab and guselkumab in jPsA
3. Evaluate safety of ustekinumab and guselkumab in jPsA
4. Evaluate immunogenicity of ustekinumab and guselkumab in jPsA

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 24/11/2022, East of England - Cambridge East Research Ethics Committee (The Old Chapel, Royal Standard Place, Nottingham, NG1 6FS, United Kingdom; +44 2071048181; cambridgeeast.rec@hra.nhs.uk), ref: 22/EE/0222

Primary study design
Interventional

Study design
Interventional non randomized

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Juvenile Psoriatic Arthritis

Interventions
Cohort 1: Ustekinumab
Participants will receive a weight-based dose of Ustekinumab at Week 0, Week 4 and then every 12 weeks up to Week 52.
Ustekinumab will be administered by subcutaneous (SC) injection and the dose will be based on the participant's weight at each visit as follows:
• Body weight <60 kg: 0.75 mg/kg
• Body weight ≥60 kg but ≤100 kg: 45 mg
• Body weight >100 kg: 90 mg

Cohort 2: Guselkumab
Participants without evidence of joint damage will be dosed with guselkumab at Week 0, Week 4

and then every 8 weeks up to Week 52. Participants with radiographic evidence of joint damage will be dosed with guselkumab every 4 weeks from Week 0 through Week 52. Participants at high risk of joint damage according to clinical judgement but should be considered for dosing every 4 weeks, depending upon the judgement of the study doctor.
Guselkumab will be administered as subcutaneous injection and the dose will be based on the participant's weight at each visit as follows:
• Body weight <70 kg: 1.3 mg/kg
• Body weight ≥70 kg: 100 mg
At or after the week 28 efficacy visit, patients who are receiving q8w guselkumab dosing who have flare or inadequate disease control can be escalated to q4w dosing at the investigator's discretion. Patients who are initiated on guselkumab q8w dosing and who do not meet the primary endpoint at Week 24 can also be escalated to q4w dosing at the investigator's discretion at or after the Week 28 efficacy visit. Prior to any dose modification, investigators must contact the Sponsor medical monitor.

Choice of cohort will be at the discretion of the site investigator and the participant and their caregiver and there will be no randomization of participants to a given cohort. All endpoints will be evaluated separately for each cohort and data will not be combined or compared between the cohorts.

Intervention Type
Drug

Phase
Phase III

Drug/device/biological/vaccine name(s)
Ustekinumab, guselkumab

Primary outcome(s)
Ustekinumab
1. Observed steady-state trough concentrations and population PK model-predicted AUCss over a 12-week dosing interval at Week 28 by baseline age groups.
2. Percentage of participants with jPsA achieving ACR Pedi 30 response at Week 24.

Guselkumab
1. Observed steady-state trough concentrations and population PK model-predicted AUCss over a dosing interval (4 or 8 weeks) at Week 28 by baseline age groups.
2. Percentage of participants with jPsA achieving ACR Pedi 30 response at Week 24.

Key secondary outcome(s)
PK
Ustekinumab
1. Observed steady-state trough concentrations and population PK model-predicted AUCss over a 12-week dosing interval at Week 52 by baseline age groups
Guselkumab
1. Observed steady-state trough concentrations and population PK model-predicted AUCss over a dosing interval (4 or 8 weeks) at Week 52 by baseline age groups.

Efficacy
Ustekinumab

2. Proportions of participants achieving ACR Pedi 30 response at Weeks 4, 8, 12, 16, 24 and 52.
3. Proportions of participants achieving ACR Pedi 50 and 70 responses at Weeks 4, 8, 12, 16, 24, and 52.
4. Time to response measured as time to achieving ACR Pedi 30 from baseline through Week 24.
5. Change from baseline in cJADAS 10, JADAS 10, 27, and 71 at Weeks 4, 8, 12, 16, 24, 28 and 52.
6. PASI response between baseline and Week 24.
Guselkumab
2. Proportions of participants achieving ACR Pedi 30 response at Weeks 4, 8, 12, 16, 24, and 52.
3. Proportions of participants achieving ACR Pedi 50 and 70 responses at Weeks 4, 8, 12, 16, 24, and 52.
4. Time to response measured as time to achieving ACR Pedi 30 from baseline through Week 24.
5. Change from baseline in cJADAS 10, JADAS 10, 27, and 71 at Weeks 4, 8, 12, 16, 24, 28 and 52.
6. PASI response between baseline and Week 24.

Safety
Ustekinumab and Guselkumab
7. The occurrences and type of AEs, SAEs, and reasonably related AEs will be summarized.

Immunogenicity
Ustekinumab and Guselkumab
8. The overall incidence of antibodies to ustekinumab/guselkumab (including peak titers) through Week 68.

Completion date
01/09/2025

Eligibility

Key inclusion criteria
1. 5 to 18 years of age, inclusive.
2. Diagnosis of jPsA by Vancouver inclusion criteria, with exclusion of ERA. Diagnosis made ≥12 weeks prior to screening. Arthritis plus psoriasis, or arthritis plus ≥2 of the following: dactylitis, nail pits, family history of psioriasis in a first or second-degree relative, psoriasis-like rash.
3. Active disease in ≥3 joints at screening and at Week 0 (defined as swelling or loss of motion with pain and/or tenderness). Swelling alone meets the criteria for an active arthritic joint. In the absence of swelling, loss of motion with pain or tenderness or both pain and tenderness meet the criteria for an active arthritic joint
4. Medically stable on the basis of physical examination, medical history, and vital signs performed at screening. Any abnormalities must be consistent with the underlying illness in the study population and this determination must be recorded in the participant’s source documents and initialed by the investigator.
5. Medically stable on the basis of clinical laboratory tests performed at screening. If the results of the serum chemistry panel or hematology are outside the normal reference ranges, the participant may be included only if the investigator judges the abnormalities or deviations from normal to not be clinically significant or to be appropriate and reasonable for the population under study. This determination must be recorded in the participant's source documents and initialed by the investigator.

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Child

Lower age limit
5 Years

Upper age limit
18 Years

Sex
All

Key exclusion criteria
1. Participants with enthesitis-related arthritis (ERA)
2. Taken any disallowed therapies as noted in Section 6.8, Concomitant Therapy within the timeframe specified before the planned first dose of study intervention.
3. If participants were non-responders to previously received biologic treatment with an overlapping mechanism including guselkumab, ustekinumab, tildrakizumab (MK3222) and risankizumab (BI-655066). Prior non-response to an anti-TNFα inhibitor, an IL-17 inhibitor or a Janus kinase (JAK) inhibitor is not an exclusion. Patients who previously discontinued ustekinumab for intolerance may be enrolled into the guselkumab cohort. Patients who previously discontinued guselkumab due to intolerance may be enrolled into the ustekinumab cohort.
4. Received an investigational intervention (including investigational vaccines) or used an invasive investigational medical device within 4 weeks or 5 half-lives (whichever is longer) before the planned first dose of either study intervention or is currently enrolled in an investigational study. Receipt of an investigational vaccine for COVID-19 is not an automatic exclusion criterion; discuss with medical monitor.
5. Have a history of latent or active granulomatous infection, including TB, histoplasmosis, or coccidioidomycosis, prior to screening. An exception is made for participants currently receiving treatment for latent TB with no evidence of active TB, or who have a history of latent TB and documentation of having completed appropriate treatment for latent TB within 3 years prior to the first administration of either study intervention (Section 5.1, Inclusion criterion 16.a of the study protocol).

Date of first enrolment
27/10/2021

Date of final enrolment
31/03/2026

Locations

Countries of recruitment
United Kingdom

Argentina

Belgium

Denmark

France

Germany

Italy

Netherlands

Poland

Spain

Sweden

Switzerland

Türkiye

Study participating centre
-
United Kingdom
-

Sponsor information

Organisation
Janssen-Cilag International NV

Funder(s)

Funder type
Industry

Funder Name
Janssen-Cilag International NV

Results and Publications

Individual participant data (IPD) sharing plan

The current data sharing plans for this study are unknown and will be available at a later date

IPD sharing plan summary

Data sharing statement to be made available at a later date