An open-label, non-randomized extension study to evaluate the long term safety, tolerability, efficacy and pharmacokinetics of CDZ173 (leniolisib) in patients with APDS/PASLI (activated phosphoinositide 3-kinase delta syndrome/p110δ-activating mutation causing senescent T cells, lymphadenopathy and immunodeficiency)

Published: 19-09-2016 Last updated: 21-12-2024

This study is an open-label, non-randomized extension to study CCDZ173X2201. It aims to provide treatment with CDZ173 to patients withAPDS/PASLI who participated in study CCDZ173X2201 or who were treated previously with PI3Kδ inhibitors...

**Ethical review** Approved WMO **Status** Recruiting

Health condition type Immunodeficiency syndromes

**Study type** Interventional

# **Summary**

#### ID

NL-OMON54847

Source

ToetsingOnline

**Brief title** 

CCDZ173X2201E1

### **Condition**

• Immunodeficiency syndromes

### **Synonym**

Activated phosphoinositide 3-kinase delta syndrome/ p110δ-activating mutation causing senescent T cells, lymphadenopathy and immunodeficiency

### Research involving

Human

### **Sponsors and support**

**Primary sponsor:** Pharming Group

Source(s) of monetary or material Support: Novartis Pharma B.V. (sponsor / verrichter

van het onderzoek)

### Intervention

**Keyword:** APDS / PASLI, Efficacy, Safety

#### **Outcome measures**

### **Primary outcome**

To evaluate the long term safety and tolerability of CDZ173 in patients with

APDS/PASLI

### **Secondary outcome**

- To evaluate the long term efficacy of CDZ173 to modify healthrelated quality of life in patients with APDS/PASLI.
- To evaluate the long term efficacy of CDZ173 by means of biomarkers reflecting the efficacy of CDZ173 to reduce systemic inflammatory components of the disease in patients with APDS/PASLI.
- To characterize the pharmacokinetics (trough concentrations) of CDZ173 in patients with APDS/PASLI.
- To evaluate the pharmacokinetics and relative bioavailability of CDZ173

# **Study description**

### **Background summary**

This study is designed to evaluate CDZ173, a selective PI3Kδ inhibitor, in patients with genetically activated PI3Kδ, i.e., patients with APDS/PASLI. Mutations in the p110δ subunit of the PI3K kinase that recruit the kinase PI3K to the plasma membrane independent of exogenous activation have been recently described, hence resulting in a gain-of-function of PI3Kδ. Less than 100 patients have been described to date. This rare disease has been named \*Activated PI3Kδ Syndrome\* (APDS) or \*p110δ-activating mutation causing senescent T cells, lymphadenopathy and immunodeficiency\* (PASLI). The clinical phenotype frequently includes massive lymphoproliferation/lymphadenopathy, recurrent oto-sino-pulmonary infections, increased risk for autoimmune diseases, inability of successful vaccination, and risk of lymphomas. Current treatment options are only symptomatic. CDZ173 is a small molecule inhibitor of p110δ that inhibits the overactive function of the mutated PI3K.

### **Study objective**

This study is an open-label, non-randomized extension to study CCDZ173X2201. It aims to provide treatment with CDZ173 to patients with APDS/PASLI who participated in study CCDZ173X2201 or who were treated previously with PI3Kô inhibitors other than CDZ173, and to obtain long term safety, tolerability, efficacy and pharmacokinetic data of CDZ173 in this patient population.

### Study design

Patients can be enrolled in this extension study either directly at the EOT or EOS visit of the study CCDZ173X2201 or later in time. Patients who were treated previously with PI3Kδ inhibitors other than CDZ173 can be enrolled if they meet the eligibility criteria at the screening visit.

The study will be composed of a screening period of max. 7 days, following by a treatment period of 6 years during which the subject will take the study drug twice daily. In total there will be 18 control visits in approx. 6 years and 9 months, including a follow-up period of 3 months (following the treatment period) and a final control visit. All visits will take approx. 2 hours.

In case patients will be enrolled in this extension study directly at the end-of-study (EOS) visit of the study CCDZ173X2201, this visit counts as the

screening visit for the extension study. In this case, the total number of visits comes down to 18.

#### Intervention

Dosing regime of 70 mg twice daily

### Study burden and risks

Study period: circa 6 years and 9 months, 18 visits, approx. 2 hours per visit. In case patients will be enrolled in this extension study directly at the end-of-study (EOS) visit of the study CCDZ173X2201, this visit counts as the screening visit for the extension study. In this case, the total number of visits comes down to 18.

Based on 18 visits:

Physical examination: 17 times; Blood sampling: 18 times (15-65 ml per draw (total volume < 200 mL)); Urinalysis: 17 times; Vital signs: 18 times; ECG: 17 times; Optional CT- / MRI-/ US-Scan: 1 time; Assessment disease activity: 16

times, saliva assessment: 4 times

Other: Prohibited concomitant medication.

### **Contacts**

#### **Public**

**Pharming Group** 

Darwinweg 24 Leiden 2333CR NL

**Scientific** 

**Pharming Group** 

Darwinweg 24 Leiden 2333CR NL

### **Trial sites**

### **Listed location countries**

**Netherlands** 

# **Eligibility criteria**

#### Age

Adolescents (12-15 years) Adolescents (16-17 years) Adults (18-64 years)

### Inclusion criteria

- Patients must have completed the study CCDZ173X2201 EOT/EOS visit, or were treated previously with PI3Kδ inhibitors other than CDZ173.
- Patients who are deemed by the Investigator to benefit from PI3K inhibitor therapy.
- Patients or their legal representatives (for patients under the age of 18 years) must be able to communicate well with the Investigator, to understand and comply with the requirements of the study.
- Documented APDS/PASLI-associated genetic PI3K delta mutation. Patients with mutations in either PIK3CD or PIK3R1 can be included. Other protocol-defined inclusion criteria may apply

### **Exclusion criteria**

- Patients who withdrew consent from the study CCDZ173X2201
- Use of other investigational drugs, except CDZ173, within 5 half -lives of enrollment, or within 30 days, whichever is longer.
- Concurrent use of immunosuppressive medication
- Administration of any live vaccines (including any attenuated live vaccines) starting from 6 weeks before study entry, during the study and up to 7 days after the last dose of CDZ173 should be excluded.
- Pregnant or nursing (lactating) women, where pregnancy is defined as the state of a female after conception and until the termination of gestation.
- Women of child-bearing potential, defined as all women physiologically capable of becoming pregnant, unless they are using highly effective methods of contraception during dosing and for 2 days after last dose of study medication.
- Uncontrolled chronic or recurrent infectious disease (with the exception of those that are considered to be characteristic of APDS/PASLI). , For patients who did not participate in study CCDZ173X2201 but were treated previously with PI3K $\delta$  inhibitors other than CDZ173, the following additional exclusion criteria apply:

- Vital signs (systolic and diastolic blood pressure and pulse rate) will be assessed in the sitting position after the patient has rested for at least three minutes.
- Patient must have a minimum body weight of 45 kg
- Evidence of tuberculosis infection as defined by a positive QuantiFERON TB test (or comparable test) at screening. If presence of latent tuberculosis is established then treatment according to local country guidelines must have been completed before patients can be considered for enrollment.
- Use of unstable dosing regimen with i.v. Ig / s.c. Ig in the last 6 months before screening. Stable maintenance immunoglobulin regimen, as per local practice, such as regular injections with a consistent dosing interval (e.g., monthly) is acceptable
- History of acquired immunodeficiency diseases, or a positive HIV (ELISA and Western blot) test result at screening.
- A positive Hepatitis B surface antigen or Hepatitis C test (by PCR) result at screening.

Other protocol-defined exclusion criteria may apply

# Study design

# Design

Study	/ phase:	7	)
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Study type: Interventional

Masking: Open (masking not used)

Control: Uncontrolled

Primary purpose: Treatment

### Recruitment

NL

Recruitment status: Recruiting
Start date (anticipated): 05-12-2016

Enrollment: 5

Type: Actual

### Medical products/devices used

Registration: No

Product type: Medicine

Brand name: CDZ173 (Leniolisib)

Generic name: CDZ173 (Leniolisib)

### **Ethics review**

Approved WMO

Date: 19-09-2016

Application type: First submission

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 10-10-2016

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 03-11-2016

Application type: First submission

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 02-05-2017

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 02-06-2017

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 02-08-2017

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 17-08-2017

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 15-01-2018

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 19-01-2018

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 02-08-2018

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 21-08-2018

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 24-09-2018

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 17-10-2018

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 11-02-2019

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 11-03-2019

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 21-05-2019

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 06-06-2019

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 02-12-2019

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 13-01-2020

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 11-08-2020

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 16-09-2020

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 18-11-2020

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 19-11-2020

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 06-06-2021

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 02-07-2021

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 05-07-2021

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 19-07-2021

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 27-04-2022

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 08-05-2022

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 08-08-2022
Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 14-11-2022

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 04-03-2023
Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 18-04-2023

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 31-10-2024

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

Approved WMO

Date: 20-11-2024

Application type: Amendment

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

# **Study registrations**

### Followed up by the following (possibly more current) registration

No registrations found.

# Other (possibly less up-to-date) registrations in this register

ID

No registrations found.

# In other registers

Register

EudraCT EUCTR2016-000468-41-NL

ClinicalTrials.gov NCT02859727 CCMO NL58812.078.16