# A Phase 3, Randomized, Open-Label Study To Evaluate the Efficacy and Safety of Eflornithine with Lomustine Compared to Lomustine Alone in Patients with Anaplastic Astrocytoma That Progress/Recur After Irradiation and Adjuvant Temozolomide Chemotherapy

Published: 20-04-2017 Last updated: 17-01-2025

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Ethical review	Approved WMO
Status	Completed
Health condition type	Nervous system neoplasms malignant and unspecified NEC
Study type	Interventional

# Summary

### ID

NL-OMON50263

**Source** ToetsingOnline

Brief title STELLAR Study

# Condition

• Nervous system neoplasms malignant and unspecified NEC

#### Synonym

Anaplastic Astrocytoma - Rare malignant brain tumor

#### **Research involving** Human

### **Sponsors and support**

Primary sponsor: Orbus Therapeutics, Inc. Source(s) of monetary or material Support: Industry

### Intervention

Keyword: Anaplastic Astrocytoma, Brain tumor, Oncology, Progress/Recur

### **Outcome measures**

#### **Primary outcome**

Efficacy: The primary efficacy endpoint is the duration of OS as measured from

the date of randomization to the date of death due to any cause.

Safety:Adverse events, vital signs and clinical laboratory tests

Pharmacokinetics (PK): Plasma drug concentrations will be analyzed to evaluate PK of eflornithine in a subset of patients (n=approximately 20) on Treatment Arm A only

The primary efficacy analysis will be performed in accordance with the intention-to-treat (ITT) principle. All randomized patients will be included in the primary efficacy analysis according to their randomly assigned study treatment, irrespective of the actual receipt of such treatment. OS and PFS will be summarized descriptively using the Kaplan-Meier method. For both endpoints, the primary inferential comparison between treatment arms will be performed using the log-rank test stratified by the randomization

stratification factors for age, region, IDH-1 status, and number of prior surgeries.

Estimation of the hazard ratio (HR) for treatment arm will be determined using a stratified Cox proportional hazards model, without any other covariate. For PFS, disease progression will be assessed using criteria described in Appendix 5. The disease progression date and censoring date for PFS will be based on published conventions (FDA 2007). Sensitivity analyses will be performed to identify asymmetry between treatment arms for the frequency of missed disease assessments, deviations of the actual disease assessment times from the planned assessment times, and

alternative censoring conventions.

ORR will be estimated based on the proportion of patients in each treatment arm whose best overall response during the course of study treatment is CR or PR. Tumor response will be assessed using criteria described in Appendix 5. Approximate 95% confidence intervals will be calculated by treatment arm for the true ORR. The inferential comparison of the observed ORRs will be made using the Cochran-Mantel-Haenszel chi-square test, stratified by the aforementioned randomization stratification factors.

The overall type I error rate for the study is set at 0.05 (two-sided). With the exception of OS, all hypothesis testing will be assessed using a two-sided significance level of 0.05. The O\*Brien-Fleming group sequential procedure will be used to control the overall type I error for multiple testing of OS (see below). If superiority of OS is demonstrated at either the interim or primary analysis, formal inferential comparisons between treatment arms are planned for

the secondary endpoints PFS and ORR. The tests will be performed in a sequential hierarchical manner based on a

closed testing procedure (CTP). The CTP will be employed to maintain control of the overall type I error rate to account for hypothesis testing of multiple secondary endpoints. The sequential hierarchical order in which the secondary efficacy endpoints will be tested is described in Section 8.6.1.

The sample size was calculated by assuming true median OS of 12 months for the treatment arm receiving lomustine monotherapy (control arm). It is hypothesized true median OS will be 18 months or longer for the treatment arm receiving eflornithine plus lomustine (investigational arm). Under the assumption that OS follows an exponential probability distribution for each treatment arm, such an improvement represents a true hazard ratio

of 0.667 (investigational arm/control arm). Inferential comparisons of OS will be performed using a stratified log-rank test, stratifying on the randomization stratification factors. Total accrual of approximately 340 patients (170 per treatment arm) and total information of 261 deaths is estimated to provide 90% power to detect a 33% reduction in the OS failure hazard rate, based on a two-sided overall type I error of 5% with adjustment for one interim analysis for superiority at 67% of total deaths (SEQDESIGN procedure, SAS version 9.2). The primary analysis

for the OS comparison is expected to occur approximately 36 months (18 months of accrual plus 18 months of follow-up) after the first patient is randomized. It is projected that an observed hazard ratio of 0.78 or less, which corresponds to a 3.44 month or greater observed improvement in median OS (12

vs. 15.4 months), would result in a statistically significant improvement for the primary analysis of OS in favor of the arm receiving the investigational treatment.

One formal interim analysis of OS for futility is planned after 130 deaths (50% of total deaths) have been observed, which is projected to occur approximately 18 months after the date the first patient is randomized. The objective of the futility analysis is to terminate the study early if there is evidence the investigational treatment is not offering an improvement over the control treatment. Based on a nonbinding version of the futility stopping rule originally described by Ellenberg and Eisenberger, the study may be terminated early if the estimated hazard ratio for treatment

(investigational arm/control arm) is greater than or equal to one. Such a futility stopping rule, when based on 50% of the planned events, results in loss of power of no more than 2-3%.

One formal interim analysis of OS for superiority is planned after 174 deaths (67% of total deaths) have been observed, which is projected to occur approximately 24 months after the date the first patient is randomized. This formal comparison of OS will allow for early stopping for superiority. The boundary for declaring superiority will be derived based on the actual number of deaths using the Lan-DeMets alpha spending function with an O\*Brien-Fleming type boundary.

An independent data monitoring committee (IDMC) will review the results of the interim efficacy analyses. Additionally, the IDMC will review safety data on a periodic basis, but not less frequently than approximately every 6 months.

Unplanned safety review meetings of the IDMC may be called at any time. The first safety review meeting will be held after the first 20 patients are randomized (approximately 10 per treatment arm) and have completed at least 4 weeks of follow-up after the initiation of study treatment or terminated therapy at an earlier time point due to toxicity. The second safety review meeting will be held after an additional 20 patients are randomized (approximately 10 additional patients per treatment arm; providing a cumulative 40 patients) and have completed at least 4 weeks of follow-up after the initiation of study treatment or terminated therapy at an earlier time point due to toxicity. The third safety review meeting will be held after an additional 20 patients are randomized (approximately

10 additional patients per treatment arm; providing a cumulative 60 patients) and have completed at least 4 weeks of follow-up after the initiation of study treatment or terminated therapy at an earlier time point due to toxicity. Enrollment may continue while the IDMC conducts their initial review unless otherwise recommended by the IDMC. The IDMC\*s assessment for this and subsequent safety reviews will focus on deaths (due to any cause), treatment modifications, treatment discontinuations, and serious adverse events. The safety monitoring plan will also provide for

prompt notification of the IDMC and/or study accrual to be temporarily suspended to allow for full review of the safety data by the IDMC under certain conditions (see Section 8.4.1). The IDMC chair will be notified promptly after each Grade 4 treatment-related adverse event is reported and within 48 hours of the occurrence of any treatment-related death. In the event of a

treatment-related death, study accrual will be temporarily suspended to allow for full review of the safety data by the IDMC. Depending on

the outcome of the review, the IDMC may recommend continuation, termination, or

modification of the stu

#### Secondary outcome

The secondary efficacy endpoints are PFS, ORR, OS for the IDH-1 mutant patients

and OS for the IDH-1 wild type patients

# **Study description**

### **Background summary**

The purpose of this study is to measure how well and how safe effornithine is in combination with lomustine, compared to lomustine taken alone, in treating patients whose anaplastic astrocytoma has come back after radiation and chemotherapy. Safety and how well you can tolerate the drug will be determined on the basis of physical exams, laboratory tests, and questions about any problems you might experience during the study.

Anaplastic astrocytoma (AA) is a World Health Organization (WHO) grade 3 primary glioma tumor with an incidence of at least 0.4/100,000 patient-years and about 5,600 newly diagnosed patients in the U.S. yearly, based on the 2006-2010 data. Most WHO grade 3 tumors respond to cytotoxic chemotherapy to a variable extent. These tumors infiltrate (invade) adjacent brain. Since chemotherapy agents vary in their ability to

cross normal cerebral vasculature (blood-brain-barrier) as well as tumor capillary beds (blood-tumor barrier), many drugs tested over the years have failed to produce meaningful antitumor efficacy, because they were unable to reach invading tumor cells in sufficient dose and for sufficient time. All alkylating agents considered to be \*active\* against high-grade gliomas have demonstrated an ability to traverse the normal brain vasculature as well as tumor capillary beds to achieve therapeutic levels in and surrounding infiltrating tumor cells. These active agents are the lipophilic drugs BCNU (carmustine), CCNU (lomustine), procarbazine (Matulane®), and temozolomide (Temodar®).

Over the past several decades, there has been much progress in the treatment of AA, with the median survival time in the 1980s being 13 to 19 months in patients treated with surgery and irradiation. Nonetheless, curative treatments

with reduced regional and systemic toxicity are still very much needed for AA tumors, given the high rate of transformation of AA tumors into glioblastoma multiforme (GBM) if they are not cured while phenotypically AA. A Phase 3 randomized study of post-radiotherapy adjuvant chemotherapy with the combination therapy of procarbazine, lomustine, and vincristine (PCV) in 228 evaluable patients with anaplastic glioma (AG) showed that addition of effornithine improved overall

survival (OS) from a median of 61.1 months to 75.8 months from randomization.

### Study objective

The primary objective of this study is to demonstrate superiority in overall survival (OS) and comparable safety when effornithine is added to lomustine compared to lomustine alone in patients with anaplastic astrocytoma (AA) that progress/recur after irradiation and adjuvant temozolomide chemotherapy.

The secondary objectives of this study are to determine:

- Progression-free survival (PFS)
- The objective response rate (ORR)
- OS for IDH-1 mutant patients
- OS for the IDH-1 wild type patients

The exploratory objectives of this study are to determine:

• Clinical benefit response (CBR) based on magnetic resonance imaging (MRI) criteria

• OS rate at 18 months (OS-18)

• Relevance of OS, PFS, ORR, and CBR to commonly used molecular/genetic biomarkers obtained from most recent prestudy tumor samples (i.e., p53 mutation, deletion of chromosomes 1p and 19q, IDH1 mutations, ATRX mutation, Mib-1 labeling index, MGMT promoter methylation)

• Steady-state plasma pharmacokinetics (PK) for effornithine in patients within 2 weeks of initial dosing

# Study design

This is a randomized, open-label, multicenter, active-controlled study to evaluate the efficacy and safety of effornithine with lomustine compared to lomustine alone in patients with AA that progress/recur after irradiation and adjuvant temozolomide chemotherapy.

Patients who provide written consent and meet all eligibility criteria will be randomized in a 1:1 ratio to one of the following two treatment arms:

Treatment Arm A: Eflornithine administered on a 2 week on,1 week off schedule + Lomustine administered every 6 weeks (n=170)

Treatment Arm B: Lomustine administered every 6 weeks (n=170)

Note: Refer to Section 3.2 of the protocol for additional dosing information.

Randomization will be stratified by:

- Age <= 45 years or > 45 years at study randomization
- Region (US vs Ex-US) at study randomization
- IDH-1 status (wild type vs mutant) at study randomization

• Number of prior surgeries (biopsy only vs (1 or 2 surgical resections [e.g.,

surgical resection at primary diagnosis and secondary surgical resection after first progression/recurrence])) at study randomization

#### Intervention

Eflornithine 2.8 g/m2 administered orally every 8 hours on a 2 week on, 1 week off schedule, without regard to food

Lomustine 90 or 110 mg/m2 administered orally once every 6 weeks, without regard to food

#### Study burden and risks

#### Eflornithine

The possible discomforts, side effects and risks related to effornithine treatment are not all known. Most side effects are not serious. Some may be serious and may require treatment or additional testing. This section describes how frequently side effects occurred in patients who have been treated with effornithine.

Very common (more than or equal to 10%):

- changes in white blood cell counts
- diarrhea

Common (>= 1% and < 10%):

- changes in red blood cell count
- changes in platelets (blood cells that help blood clot)
- · hearing loss or other problems related to ears
- nausea/vomiting
- flatulence (gas)
- feeling general discomfort
- feeling tired
- headache
- dizziness
- seizure or convulsion
- skin rash
- appearance of protein in urine
- alter or change of sense of taste

#### Lomustine

The following adverse reactions to treatment with lomustine have been identified:

Very common (more than or equal to 10%):

- changes in your white blood cell count
- changes in your red blood cell count
- changes in platelets (blood cells that help blood clots)
- changes in your liver
- feeling confused and tired
- poor appetite
- loss of ability to conceive or father a child

Common (more than or equal to 1% and less than 10%):

- nausea and vomiting
- mouth sores
- diarrhea
- hair loss

Uncommon (more than or equal to 0.1% and less than 1%):

- blurred vision
- speech problems
- losing control of your body movement
- get a second cancer or leukemia some years after lomustine treatment
- changes in your lung or kidney functions

UKNOWN/UNEXPECTED RISKS AND DISCOMFORTS

In addition to the risks listed above, there are risks that are not known or do not happen often when patients take these study drugs, including severe or life-threatening allergic reactions, interactions between study drugs or interactions with another medication. You will be informed in a timely manner, both verbally and in writing of any new information, findings or changes to the way the research will be done that might influence your willingness to continue to take part in this study.

#### PREGNANCY AND BREAST-FEEDING

The effects of effornithine and lomustine have not been evaluated on the developing human fetus. However, based on animal studies (e.g. rats, dogs) effornithine and lomustine are considered to be embryotoxic, meaning it can harm the developing fetus. It is very important while you are in this study that you do not become pregnant if you are a female, or do not cause others to become pregnant if you are a male.

If you are a sexually active female, it is required that you use an acceptable method of birth control from the screening visit throughout the study and for 30 days following the last dose of study drug. Not having sex is the only certain way to prevent pregnancy. Otherwise, the following methods of birth control is accepted: birth control pills, intrauterine device (IUD or coil), intrauterine system (IUS - small, plastic device which sits inside the womb), tubal sterilization, Essure micro-insert system, or vasectomy in the male partner. Please speak with your study doctor to determine the best method of birth control for you to use during this study.

Even if you use an acceptable method of birth control, you could still become pregnant. There is a slight chance that a pregnancy test could be wrong. If the pregnancy test is wrong, and you receive the study drug while pregnant, the study drug may harm an unborn baby.

If you are female and become pregnant or suspect that you have become pregnant while in the study and within 30 days of last dose of study drug, you will be required to stop taking all the study drugs and to notify your study doctor immediately. You will be discontinued from the study. The study doctor will request to track your pregnancy and will report the pregnancy and outcome to the sponsor.

Other not yet identified side effects could occur to you, your embryo or fetus should you become pregnant during the time you participate in the study or after you have completed the study.

#### ALLERGIC REACTION RISKS

Although allergic reactions have not been seen previously in patients who have received effornithine by mouth in prior oncology studies, as with taking any drug, there is a potential risk of an allergic reaction. Allergic reaction symptoms can range from mild (example, mild itching) to very severe reactions. If you have a very serious allergic reaction, you may be at risk of death. Some symptoms of allergic reactions are:

- Rash
- Itching
- Difficulty breathing
- Wheezing
- Sudden drop in blood pressure
- Swelling around the mouth, throat or eyes
- A fast pulse
- Sweating

Please seek treatment and alert the study doctor and study staff immediately if you have any of these symptoms, or any other side effects, during the study.

RISKS OF ADDITIONAL STUDY PROCEDURES:

#### Blood Draws

Drawing blood from a vein may cause local pain, bruising, occasional lightheadedness, fainting, and very rarely, infection at the site of the blood draw.

#### Electrocardiogram (ECG)

After you have an ECG, you may have mild irritation, slight redness, and itching at the places on your skin where the recording patches are placed.

You may have to have your chest shaved for this procedure.

Magnetic Resonance Imaging (MRI)

An MRI scan is a type of scan that uses a magnetic field and pulses of radio wave energy to produce detailed images of your brain. The risk for taking an MRI is minimal.

Hearing Test and Lung Function Test These tests are not invasive and the risks are minimal.

# Contacts

**Public** Orbus Therapeutics, Inc.

E. Bayshore Road, Suite 105 2479 Palo Alto, CA 94303 US **Scientific** Orbus Therapeutics, Inc.

E. Bayshore Road, Suite 105 2479 Palo Alto, CA 94303 US

# **Trial sites**

# **Listed location countries**

Netherlands

# **Eligibility criteria**

Age Adults (18-64 years) Elderly (65 years and older)

# **Inclusion criteria**

Patients must meet all of the following inclusion criteria to be

eligible for participation in this study:

1. The ability to understand and sign a written informed consent form, which must be obtained prior to initiation of study procedures.

2. Age >= 18 years.

3. Surgical or biopsy-proven diagnosis of WHO grade 3 AA.

4. Received EBRT and temozolomide chemotherapy prior to first tumor progression or recurrence of WHO Grade 3 AA.

5. First AA tumor progression or recurrence <= 6 months prior to randomization based on MRI using T2 hyperintensity, gadolinium (Gd)-contrast enhancement, or both. To avoid enrollment of patients with glioblastoma, patients with Gd-contrast enhancing tumors will be eligible if there is no necrosis seen on MRI and any of the following criteria is true:

a. Gd-contrast lesion margins are not clearly defined,

b. Gd-contrast lesions are only measurable in one dimension,

c. Gd- contrast lesion has two perpendicular diameters less than 10 mm [1],

d. Gd-contrast lesion has two perpendicular diameters greater than 10 mm but less than 20 mm and lesion does not demonstrate central necrosis,

e. Recent histopathological confirmation of WHO grade 3 AA

6. Completion of EBRT >= 6 months prior to randomization.

7. Stained, unstained slides or tumor tissue block(s) are available from their most recent tumor surgery for central histological confirmation.

8. A patient whose AA tumor has progressed or recurred and has had another surgical resection prior to randomization will be eligible if a) pathology review confirms AA, and b) postsurgical

MRI demonstrates measurable tumor on T2 FLAIR.

9. If taking corticosteroids, must be on a stable or decreasing dose for at least 5 days prior to the screening MRI.

10. Karnofsky Performance Status score of > 70.

11. Off anticancer therapy for at least 4 weeks and recovered from any

significant treatment-related toxicities to Grade  $\leq 1$  prior to randomization.

12. Adequate recovery from any major surgery is required; at least 4 weeks must have elapsed from the time of any major surgery and must have recovered from all surgery-related toxicities to

Grade <= 1 prior to randomization.

13. Adequate hematologic function (ANC >=  $1,500/\mu$ L, platelet count >=  $100,000/\mu$ L, and hemoglobin >= 10.5 gm/dL) within 14 days prior to randomization.

14. Total bilirubin  $\leq 1.5x$  upper limit of normal (ULN) within 14 days prior to randomization.

15. Hepatic transaminases (AST and ALT)  $\leq 2x$  ULN within 14 days prior to randomization.

16. Adequate renal function (serum creatinine  $\leq 1.5x$  ULN) within 14 days prior to randomization.

17. Life expectancy >= 6 months.

18. Female patients of childbearing potential must agree to utilize acceptable contraceptive methods from screening throughout the duration of the study period, and for 30 days following the

last dose of study drug. Abstinence is an acceptable method of contraception.

Otherwise, consistent and current use of 1 of the following methods of birth control is accepted: oral

contraceptive, intrauterine device (IUD), intrauterine hormone-releasing system (IUS), tubal sterilization, Essure micro-insert system, or vasectomy in the male partner. Female

patients must also refrain from egg donation and in vitro fertilization during treatment and until at least 30 days from the last dose of study drug.

19. Male patients must agree to abstain from sexual intercourse or use an acceptable contraceptive method (e.g. condoms) from screening throughout the duration of the study period, and for

90 days following the last dose of study drug. Male patients must also refrain from sperm donation during treatment and until at least 90 days from the last dose of study drug.

# **Exclusion criteria**

Patients who meet any of the following exclusion criteria are not eligible for study participation:

1. MRI defining progression is consistent with a diagnosis of glioblastoma or radiation necrosis.

2. Patients who are considered to be refractory to EBRT and temozolomide but who have not progressed.

3. Prior systemic therapy for recurrence of AA.

4. Presence of extracranial or leptomeningeal disease.

5. Prior lomustine use.

6. History of other invasive malignancy, unless adequately treated with curative intent and with no known active disease present within 2 years prior to randomization. Patients with

non-melanoma skin cancer, carcinoma in situ (including superficial bladder cancer), cervical intraepithelial neoplasia and organ-confined prostate cancer deemed by the Investigator to be at low risk of recurrence are not excluded.

7. Active infection or serious intercurrent medical illness.

8. Known to be HIV positive or to have an AIDS-related illness, active Hepatitis B Virus (HBV), or active Hepatitis C Virus (HCV).

9. Poorly controlled seizures.

10. Unable to undergo an MRI with contrast.

11. Uncontrolled or severe cardiovascular disease, including myocardial infarction or unstable angina within 6 months prior to randomization, New York Heart Association (NYHA) Class

III or IV congestive heart failure, serious arrhythmias requiring medication for treatment, clinically significant pericardial disease, or cardiac amyloidosis.

12. Malabsorption syndrome, history of resection of the stomach or small bowel, active ulcerative colitis or Crohn\*s disease, partial or complete bowel obstruction or other conditions that

would be expected to alter the absorption or pharmacokinetics of study drugs. 13. Receipt of any other anticancer therapy while receiving protocol-defined therapy.

14. Concurrent use of any other investigational agent during the study or within 30 days prior to randomization.

15. Any other clinical condition or prior therapy that, in the opinion of the Investigator, would make the patient unsuitable for the study.

16. Pregnant or breastfeeding.

# Study design

# Design

Study phase:	3
Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Treatment

# Recruitment

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NL	
Recruitment status:	Completed
Start date (anticipated):	03-01-2018
Enrollment:	16
Туре:	Actual

### Medical products/devices used

Product type:	Medicine
Brand name:	Eflornithine
Product type:	Medicine
Brand name:	Lomustine
Registration:	Yes - NL intended use

# **Ethics review**

Approved WMO	
Date:	20-04-2017
Application type:	First submission
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO	
Date:	23-06-2017
Application type:	First submission
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO	
Date:	12-07-2017
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO	
Date:	28-07-2017
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO	
Date:	27-10-2017
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO	
Date:	07-11-2017
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO	
Date:	01-05-2018
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)

#### Approved WMO

Date:	06-06-2018
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO Date:	02-10-2018
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO Date:	13-03-2019
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO Date:	08-04-2019
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO Date:	06-02-2020
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO Date:	29-04-2020
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO Date:	05-06-2020
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO Date:	05-11-2020
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam

	(Rotterdam)
Approved WMO Date:	13-11-2020
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO	
Date:	11-10-2022
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO	
Date:	18-01-2023
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO	
Date:	04-09-2023
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

No registrations found.

### In other registers

**Register** EudraCT ID EUCTR2016-000089-45-NL

# Register

ClinicalTrials.gov CCMO ID NCT02796261 NL61119.078.17