A Phase 3, Multicenter, Randomized, Open Label Study to Compare the Efficacy and Safety of BB2121 Versus Standard Regimens in Subjects with Relapsed and Refractory Multiple Myeloma (RRMM) (KarMMa-3)

Published: 07-06-2019
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This study has been transitioned to CTIS with ID 2023-509848-10-00 check the CTIS register for the current data. Primary Objective: • Compare the efficacy of bb2121 to standard regimens in subjects with RRMM as measured by progression-free survival...

Ethical review	Approved WMO
Status	Recruiting
Health condition type	Plasma cell neoplasms
Study type	Interventional

Summary

ID

NL-OMON56296

Source
ToetsingOnline

Brief title
bb2121-MM-003 (0451/0320)

Condition

- Plasma cell neoplasms
- Haematopoietic neoplasms (excl leukaemias and lymphomas)

Synonym
Relapsed and Refractory Multiple Myeloma; Cancer of the bone marrow that recurs or is resistant to treatment

Research involving
Human

Sponsors and support

Primary sponsor: Celgene Corporation
Source(s) of monetary or material Support: the study sponsor as listed in B6/B7

Intervention

Keyword: anti-BCMA, CAR-T, Multiple Myeloma, Phase 3

Outcome measures

Primary outcome

Progression-free Survival (PFS): Time from randomization to the first documentation of progressive disease based on the International Myeloma Working Group (IMWG) Uniform Response Criteria for Multiple Myeloma (Kumar, 2016) assessed by an independent response committee (IRC) or death due to any cause

Secondary outcome

Key secondary

- Overall Response Rate (ORR): Percentage of subjects who achieved partial response (PR) or better according to IMWG Uniform Response Criteria for Multiple Myeloma (Kumar, 2016) as assessed by an IRC
- Overall Survival (OS): Time from randomization to time of death due to any cause

Other secondary

- Event-free Survival (EFS): Time from randomization to the first documentation of progressive disease, first day when subject receives another anti-myeloma treatment or death due to any cause, whichever occurs first

- Minimal Residual Disease (MRD): Evaluate subjects for MRD status using next generation sequencing (NGS)

- Complete Response (CR) Rate: Percentage of subjects who achieved CR or better according to IMWG Uniform Response Criteria for Multiple Myeloma (Kumar, 2016) as assessed by an IRC

- Duration of Response (DOR): Time from first documentation of response (PR or better) to first documentation of disease progression or death from any cause, whichever occurs first

- Time to Response (TTR): Time from randomization to the first documentation of response (PR or better)

- Safety: Type, frequency, severity of adverse events (AEs), adverse events of special interest (AESIs), and serious adverse events (SAEs)

- Pharmacokinetics (PK) - bb2121: Maximum peak in bb2121 chimeric antigen receptor (CAR) T cells (Cmax), time to peak of bb2121 CAR T cells (tmax), area under the curve of CAR T cells (AUC), time to last measurable CAR T cells (tlast), area under the curve of CAR T cells from time zero to Day 28 (AUC0-28days) including maximum expansion and duration of persistence of bb2121 CAR T cells

- Primary Domains of Interest Health Related Quality of Life (HRQoL): Changes in subject-reported health related quality of life and multiple myeloma-related symptoms as measured by the selected domains of European Organization for Research and Treatment of Cancer - Quality of Life C30 questionnaire (EORTC-QLQ-C30), specifically GH/QoL, physical functioning, pain, fatigue, and cognitive functioning and the disease symptoms and side effects of treatment

measured by European Quality of Life Multiple Myeloma Module (EORTC-QLQ-MY20)

- Time to next anti-myeloma treatment: Time from randomization to first day

when subject receives another anti-myeloma treatment

- Progression-free survival after next line therapy (PFS2): Time from

randomization to second objective disease progression or death from any cause,

whichever is first

Study description

Background summary

Disease background Multiple myeloma (MM) is a largely incurable blood cancer characterized by the clonal proliferation of malignant plasma cells both within the bone marrow (BM) and at localized extramedullary sites termed plasmacytomas (Rajkumar, 2016). The major clinical features of MM reflect both the abnormal plasma cell proliferation in local organs/tissues as well as pathologic monoclonal proteins produced by the MM cells. These clinical manifestations include infections, bleeding, anemia, hypercalcemia, bone pain/fractures (related directly to bone/BM involvement by MM cells) as well as kidney damage and hyperviscosity (related to pathologic monoclonal proteins). Multiple myeloma is at the aggressive end of a spectrum of diseases referred to as plasma cell dyscrasias (PCD) and is often preceded for months/years by an asymptomatic condition known as monoclonal gammopathy of undetermined significance (MGUS) (Rajkumar, 2016). Multiple myeloma accounts for approximately 10% to 15% of all hematologic malignancies with a global incidence of approximately 120,000 cases per year (Ludwig, 2014) and primarily affects older individuals. The median age at onset is 66 years and it is very rare in patients less than 30 years old (Moreau, 2013; Rajkumar, 2016; Kumar, 2017). Approximately 38,900 new cases and 24,300 deaths were estimated in Europe in 2012, representing an age-standardized incidence rate of 2.6 per 100,000 (Ferlay, 2013). The point prevalence in the European Union (EU) is estimated to be approximately 3.6 per 10,000 (bb2121 orphan designation, EU/3/17/1863). According to the National Cancer Institute Surveillance, Epidemiology, and End Results (SEER) Program in 2015 (National Cancer Institute, 2019), there were an estimated 124,733 people living with myeloma in the United States. In 2018, in the United States, 12,770 deaths from MM are estimated to occur (National Cancer Institute, 2019). Progress has been made in improving the overall survival (OS) in newly diagnosed MM (NDMM) patients. The increase in survival has been driven by more effective combination induction

regimens composed primarily of proteasome inhibitors (PIs), immunomodulatory (IMiD) compounds and dexamethasone coupled with consolidation using autologous stem cell transplantation (ASCT) (Moreau, 2013; Rajkumar, 2016; Kumar, 2017). Unfortunately, even with optimal up-front therapy, the vast majority of MM patients progress or relapse and therefore further treatment is needed. For these relapsed and refractory MM (RRMM) patients, treatment options have also improved over time. With the introduction of newer classes of approved anti-myeloma agents, including monoclonal antibodies (daratumumab and elotuzumab), advanced generation proteasome inhibitors (PIs; carfilzomib, ixazomib), IMiD compounds (eg, pomalidomide [POM]) and histone deacetylase inhibitors (panobinostat), RRMM patients can expect some degree of response (San-Miguel, 2014; Lonial, 2015; Stewart, 2015; Dimopoulos, 2016; Dimopoulos, 2016; Moreau, 2016; Palumbo, 2016; Botta, 2017). Despite these advances in the treatment of MM, and regardless of treatment, the vast majority of the patients will ultimately relapse. Additionally, with each relapse, tumors typically recur more aggressively, leading to decreased response duration and ultimately leading to refractory MM, which is associated with shortened survival times. There are many factors that influence the choice of therapy in the RRMM setting, including age, performance status, comorbidities, the type, efficacy and tolerance of the previous treatment, the number of prior treatment lines, the available remaining treatment options, the interval since the last therapy, and the type of relapse (clinical versus biochemical) (Moreau, 2017). Although there are several treatments available for relapsed patients, they have limited ef*cacy. In particular patients who have had successive relapses or who are refractory to treatment have poor survival (Kumar, 2017). A recent retrospective analysis of real-world survival outcomes reported a median OS of only 7.9 months in patients with > 3 prior lines of therapy, including a PI or an IMiD compound, or who were double refractory to a PI and an IMiD compound (Usmani, 2016). Compound Background bb2121 is defined as an autologous T lymphocyte-enriched population that contains cells transduced with an anti-B-cell maturation antigen (BCMA) chimeric antigen receptor (CAR) (anti-BCMA02 CAR) lentiviral vector encoding a chimeric antigen receptor targeting human B cell maturation antigen. Anti-BCMA02 CAR lentiviral vector is used to transduce autologous T cells. This vector uses the murine leukemia virus-derived myeloproliferative sarcoma virus enhanced promoter to drive expression of the chimeric receptor, a multi-domain protein consisting of the extracellular antigen recognition domain (light chain variable domain [VL] and heavy chain variable domain [VH]), the CD8α hinge domain, a transmembrane domain (CD8 TM), and the intracellular CD137 co-stimulatory (4-1BB) and CD3zeta chain signaling domains. Preclinical pharmacology of bb2121 showed desirable specificity against BCMA and potent activity of the CAR T cells leading to rapid and complete elimination of BCMA expressing tumors. In vitro, bb2121 was cytotoxic against a range of MM cell lines with varying levels of BCMA expression and this activity was not inhibited by soluble BCMA at physiologic concentrations in the cultures. There was no tonic signaling of bb2121 in the absence of BCMA target engagement and no in vitro cytotoxicity induced in cell lines lacking BCMA, underscoring the specificity of bb2121 for BCMA-expressing

target cells. In vivo models showed a selective and higher anti-tumor activity of bb2121 in comparison to bortezomib in treatment of immune-deficient mice with large established BCMA-expressing tumors with complete remission and survival rates as high as 100% in mice after a single dose of bb2121. Refer to the bb2121 Investigator*s Brochure (IB) for detailed information concerning the available pharmacology, toxicology, drug metabolism, clinical studies, and adverse event (AE) profile of the investigational product (IP).

Study objective

This study has been transitioned to CTIS with ID 2023-509848-10-00 check the CTIS register for the current data.

Primary Objective:
• Compare the efficacy of bb2121 to standard regimens in subjects with RRMM as measured by progression-free survival (PFS)

Secondary Objectives:
• Evaluate the safety of bb2121 compared to standard regimens in subjects with RRMM
• Evaluate additional efficacy parameters of bb2121 compared to standard regimens in subjects with RRMM
• Characterize the expansion and persistence of chimeric antigen receptor (CAR) + T cells, in the peripheral blood (cellular kinetics-pharmacokinetics [PK])
• Evaluate the percentage of subjects who attain minimal residual disease (MRD) negative status by next generation sequencing (NGS)
• Evaluate the impact of bb2121 compared to standard regimens on the changes in health-related quality of life (HRQoL)
• Evaluate the impact of bb2121 on health utility values compared with standard regimens

Study design

This is a multicenter, randomized, open-label, Phase 3 study comparing the efficacy and safety of bb2121 versus standard regimens in subjects with RRMM. After informed consent has been obtained, subjects will undergo screening procedures to determine eligibility. Eligible subjects will be randomized using an Interactive Response Technology (IRT), stratified by the following factors: 1. Age: < 65 years versus >= 65 years 2. number of prior anti-myeloma regimens: 2 prior anti-myeloma regimens versus 3 or 4 prior anti-myeloma regimens 3. high risk cytogenetic abnormalities; t(4;14) or t(14;16) or del 17p: presence of these known (from baseline or historical cytogenetic results) high risk cytogenetic abnormalities versus absence or unknown presence of these high risk cytogenetic abnormalities Subjects randomized to Treatment Arm A will undergo leukapheresis to enable bb2121 product generation. Subjects may receive up to 1 cycle of DPd or DVd or IRd or Kd or EPd as bridging MM therapy (refer

to Section 7.2.11.2 for DPd, DVd, IRd, Kd and EPd dosing schedule) following leukapheresis as long as the last dose is administered >= 14 days prior to initiation of lymphodepleting (LD) chemotherapy. The choice of bridging therapy will be dependent on the subject*s most recent anti-myeloma treatment regimen based on the following criteria: • Subjects who have received DARA in combination with POM with or without dexamethasone (DP±d) as part of their most recent anti-myeloma treatment regimen, may receive up to 1 cycle of DVd, IRd, Kd, or EPd as bridging therapy as per Investigator*s discretion • Subjects who have received DARA in combination with BTZ with or without dexamethasone (DV±d) as part of their most recent anti-myeloma treatment regimen, may receive up to 1 cycle of DPd, IRd, Kd or EPd as bridging therapy as per Investigator*s discretion • Subjects who have received IXA in combination with LEN with or without dexamethasone (IR±d) as part of their most recent anti-myeloma treatment regimen, may receive up to 1 cycle of DPd, Kd, EPd, DVd as bridging therapy as per Investigator*s discretion • Subjects who have received CFZ with or without dexamethasone (K±d) as part of their most recent anti-myeloma treatment regimen, may receive up to 1 cycle of DPd, DVd, IRd or EPd as bridging therapy as per Investigator*s discretion • Subjects who have received ELO in combination with POM with or without dexamethasone (EP±d) as part of their most recent anti-myeloma treatment regimen, may receive up to 1 cycle of DPd, DVd, IRd or Kd as bridging therapy as per Investigator*s discretion • Subjects who have not received DP±d or DV±d or IR±d or K±d or EP±d as part of their most recent anti-myeloma treatment regimen, may receive up to 1 cycle of DPd, DVd, IRd, Kd or EPd as bridging therapy as per Investigator*s discretion After bb2121 drug product has been successfully manufactured, additional baseline evaluations, will be performed to assess continued eligibility and safety at least 3 days prior to initiation of LD chemotherapy (including disease staging assessments for those subjects who received bridging MM therapy). Subjects eligible for treatment will receive 3 consecutive days of LD chemotherapy with fludarabine and cyclophosphamide, followed by 2 days of rest and subsequently bb2121 infusion on Day 1. Subjects will be followed for safety and efficacy and, may continue on study treatment until assessment of disease progression (PD) by the IRC based on IMWG criteria or, until withdrawal of consent. Subjects are not expected to start any other anti-myeloma therapy during the PFS follow-up period prior to PD. All subjects who received bb2121 will continue to be monitored for long-term safety after exposure to gene-modified T cells under a separate Long-term Follow-up (LTFU) study protocol for up to 15 years after bb2121 infusion, as per competent authority guidelines. Subjects randomized to Treatment Arm B will receive study treatment dependent on the subject*s most recent anti-myeloma treatment regimen: • Intravenous (IV) DARA, Oral POM, Oral/IV dexamethasone (DPd) OR • IV DARA, subcutaneous (SC) BTZ, Oral/IV dexamethasone (DVd) OR • Oral IXA, Oral LEN, Oral dexamethasone (IRd) OR • IV CFZ, Oral/IV dexamethasone (Kd) OR • IV ELO, oral POM, Oral/IV dexamethasone (EPd). The choice of study treatment will be dependent on the subject*s most recent anti-myeloma treatment regimen based on following criteria: • Subjects who have received DP±d as part of their most recent anti-myeloma treatment regimen may receive DVd, Kd, EPd or IRd as per

Investigator*s discretion • Subjects who have received DV±d as part of their most recent anti-myeloma treatment regimen may receive DPd, Kd, EPd or IRd as per Investigator*s discretion • Subjects who have received IR±d as part of their most recent anti-myeloma treatment regimen may receive DPd, Kd, EPd or DVd as per Investigator*s discretion • Subjects who have received K±d as part of their most recent anti-myeloma treatment regimen, may receive DPd, DVd, IRd or EPd as per Investigator*s discretion • Subjects who have received EP±d as part of their most recent anti-myeloma treatment regimen, may receive DPd, DVd, IRd or Kd as per Investigator*s discretion • Subjects who have not received DP±d or DV±d or IR±d or K±d or EP±d as part of their most recent anti-myeloma treatment regimen may receive DPd, DVd, IRd, Kd or EPd as per Investigator*s discretion. Subjects will be followed for safety and efficacy and may continue on study treatment until assessment of disease progression (PD) by the IRC based on IMWG criteria or, until withdrawal of consent. If requested by the Investigator, subjects in Treatment Arm B may elect to receive bb2121 upon assessment of disease progression by the IRC based on the IMWG criteria, and confirmed eligibility (see Section 6.3.3). Subjects in Treatment Arm B who receive bb2121 will be followed in the Post Treatment Follow-up period for safety for 3 months after bb2121 infusion. Efficacy data including date of initial response, best response and date of progression will be collected similar to all other subjects enrolled in the study for subsequent therapy.

Intervention

Approximately 381 subjects will be randomized 2:1 between Treatment Arm A or Treatment Arm B:
• ~ 254 subjects will be randomized to receive Treatment Arm A: bb2121
• ~ 127 subjects will be randomized to receive Treatment Arm B: standard regimens dependent on the subject*s most recent anti-myeloma treatment regimen:
* Daratumumab (DARA) in combination with pomalidomide (POM) and low-dose dexamethasone (dex) (DPd)
OR
* DARA in combination with bortezomib (BTZ) and low-dose dexamethasone (DVd)
OR
* Ixazomib (IXA) in combination with lenalidomide (LEN) and low-dose dexamethasone(IRd)
OR
* Carfilzomib (CFZ) in combination with low-dose dexamethasone (kd)
OR
* Elotuzumab (ELO) in combination with POM and low-dose dexamethasone (EPd)

Study burden and risks

Based on the current knowledge of bb2121, and the safety monitoring, mitigation

management, precautions and guidance as described in the protocol, including oversight by the Independent Data Monitoring Committee, it is considered that the risks with the proposed study as specified in the protocol are commensurate with the potential benefit that this study population with relapsed and refractory multiple myeloma may derive from treatment with bb2121.

Contacts

Public
Celgene Corporation

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US
Scientific
Celgene Corporation

Morris Avenue 86
Summit NJ 07901
US

Trial sites

Listed location countries

Netherlands

Eligibility criteria

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

Inclusion criteria

1. Subject is >= 18 years of age at the time of signing the informed consent form (ICF)
2. Subject must understand and voluntarily sign an ICF prior to any study-related assessments/procedures being conducted.
3. Subject is willing and able to adhere to the study visit schedule and other

protocol requirements within this protocol and for a subject randomized to Treatment Arm A, subject agrees to continued follow-up for up to 15 years as mandated by the regulatory guidelines for gene therapy trials.
4. Subject has documented diagnosis of MM and measurable disease, defined as:
• M-protein (serum protein electrophoresis [sPEP] or urine protein electrophoresis [uPEP]): sPEP >= 0.5 g/dL or uPEP >= 200 mg/24 hours and/or
• Light chain MM without measurable disease in the serum or urine: Serum immunoglobulin free light chain >= 10 mg/dL and abnormal serum immunoglobulin kappa lambda free light chain ratio
5. Subject has received at least 2 but no greater than 4 prior MM regimens. Note: induction with or without hematopoietic stem cell transplant and with or without maintenance therapy is considered as one regimen.
6. Subject has received prior treatment with DARA, a proteasome inhibitor- and an immunomodulatory compound-containing regimen for at least 2 consecutive cycles.
7. Subject must be refractory to the last treatment regimen. Refractory is defined as documented progressive disease during or within 60 days (measured from the last dose of any drug within the regimen) of completing treatment with the last anti-myeloma regimen before study entry.
8. Subject achieved a response (minimal response [MR] or better) to at least 1 prior treatment regimen.
9. Subject has an Eastern Cooperative Oncology Group (ECOG) performance status of 0 or 1.
10. Recovery to Grade 1 or baseline of any non-hematologic toxicities due to prior treatments, excluding alopecia and Grade 2 peripheral neuropathy.
11. Adequate vascular access for leukapheresis.
12 and 13. Adequate contraceptive measures as outlined in the protocol.
Refer to protocol for additional inclusion criteria.

Exclusion criteria

1. Subject has any significant medical condition, laboratory abnormality, or psychiatric illness that would prevent the subject from participating in the study. 2. Subject has any condition including the presence of laboratory abnormalities, which places the subject at unacceptable risk if he/she were to participate in the study. 3. Subject has any condition that confounds the ability to interpret data from the study. 4. Subject has nonsecretory MM. 5. Subject has any of the following laboratory abnormalities: a. Absolute neutrophil count (ANC) < 1,000/µL b. Platelet count: < 75,000/µL in subjects in whom < 50% of bone marrow nucleated cells are plasma cells and platelet count < 50,000/µL in subjects in whom >= 50% of bone marrow nucleated cells are plasma cells (it is not permissible to transfuse a subject to reach this level) c. Hemoglobin < 8 g/dL (< 4.9 mmol/L) (it is not permissible to transfuse a subject to reach this level) d. Serum creatinine clearance (CrCl) < 45 mL/min e. Corrected serum calcium > 13.5 mg/dL

(> 3.4 mmol/L) f. Serum aspartate aminotransferase (AST) or alanine aminotransferase (ALT) > 2.5 × upper limit of normal (ULN) g. Serum total bilirubin > 1.5 × ULN or > 3.0 mg/dL for subjects with documented Gilbert*s syndrome h. International normalized ratio (INR) or activated partial thromboplastin time (aPTT) > 1.5 × ULN, or history of Grade >= 2 hemorrhage within 30 days, or subject requires ongoing treatment with chronic, therapeutic dosing of anticoagulants (eg, warfarin, low molecular weight heparin, Factor Xa inhibitors) 6. Subject has inadequate pulmonary function defined as oxygen saturation (SaO2) < 92% on room air. 7. Subject has prior history of malignancies, other than MM, unless the subject has been free of the disease for >= 5 years with the exception of the following non-invasive malignancies: • Basal cell carcinoma of the skin • Squamous cell carcinoma of the skin • Carcinoma in situ of the cervix • Carcinoma in situ of the breast • Incidental histologic finding of prostate cancer (T1a or T1b using the tumor, nodes, metastasis [TNM] clinical staging system) or prostate cancer that can be treated with curative intent 8. Subject has active or history of plasma cell leukemia, Waldenstrom*s macroglobulinemia, POEMS syndrome (polyneuropathy, organomegaly, endocrinopathy, monoclonal protein, and skin changes) or amyloidosis. 9. Subject with known central nervous system (CNS) involvement with myeloma. 10. Subject has clinical evidence of pulmonary leukostasis and disseminated intravascular coagulation. 11. Subject has known chronic obstructive pulmonary disease (COPD) with a forced expiratory volume in 1 second (FEV1) 50% of predicted normal. Note that forced expiratory testing (FEV1) is required for subjects suspected of having COPD and subjects must be excluded if FEV1 is < 50% of predicted normal. 12. Subject has a history or presence of clinically relevant CNS pathology such as epilepsy, seizure, paresis, aphasia, stroke, subarachnoid hemorrhage or other CNS bleed, severe brain injuries, dementia, Parkinson's disease, cerebellar disease, organic brain syndrome, or psychosis. 13. Subject was treated with DARA in combination with POM with or without dexamethasone (DP±d) as part of their most recent anti-myeloma treatment regimen, cannot receive DPd as bridging therapy but may receive DVd, IRd, Kd or EPd as bridging as per Investigator*s discretion if randomized to Treatment Arm A. 14. Subject was treated with DP±d as part of their most recent anti-myeloma treatment regimen, cannot receive DPd if randomized to Treatment Arm B but may receive DVd, IRd, Kd or EPd as per Investigator*s discretion. 15. Subject was treated with DARA in combination with BTZ with or without dexamethasone (DV±d) as part of their most recent anti-myeloma treatment regimen, cannot receive DVd as bridging therapy but may receive DPd, IRd, Kd or EPd as bridging as per Investigator*s discretion if randomized to Treatment Arm A. 16. Subject was treated with DV±d as part of their most recent anti-myeloma treatment regimen, cannot receive DVd if randomized to Treatment Arm B but may receive DPd, IRd, Kd or EPd as per Investigator*s discretion. 17. Subject was treated with IXA in combination with LEN with or without dexamethasone (IR±d) as part of their most recent anti-myeloma treatment regimen, cannot receive IRd as bridging therapy but may receive DPd, DVd, Kd, EPd as bridging as per Investigator*s discretion if randomized to Treatment Arm A., Refer to protocol for additional exclusion

criteria

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

NL

Recruitment status:	Recruiting
Start date (anticipated):	08-07-2020
Enrollment:	16
Type:	Actual

Ethics review

Approved WMO Date:	07-06-2019
Application type:	First submission
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
Approved WMO Date:	12-11-2019
Application type:	First submission
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
Approved WMO Date:	20-03-2020

Application type:	Amendment
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
Approved WMO Date:	21-04-2020
Application type:	Amendment
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
Approved WMO Date:	01-07-2020
Application type:	Amendment
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
Approved WMO Date:	18-08-2020
Application type:	Amendment
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
Approved WMO Date:	31-08-2020
Application type:	Amendment
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
Approved WMO Date:	02-10-2020
Application type:	Amendment
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
Approved WMO Date:	16-10-2020
Application type:	Amendment
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
Approved WMO Date:	23-11-2020
Application type:	Amendment
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)

Approved WMO Date:	25-01-2021
Application type:	Amendment
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
Approved WMO Date:	17-03-2021
Application type:	Amendment
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
Approved WMO Date:	02-04-2021
Application type:	Amendment
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
Approved WMO Date:	30-04-2021
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Application type:	Amendment
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
Approved WMO Date:	19-10-2021
Application type:	Amendment
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
Approved WMO Date:	27-12-2021
Application type:	Amendment
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
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Application type:	Amendment

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Approved WMO Date:	17-03-2022
Application type:	Amendment
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
Approved WMO Date:	22-04-2022
Application type:	Amendment
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
Approved WMO Date:	26-07-2022
Application type:	Amendment
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
Approved WMO Date:	16-09-2022
Application type:	Amendment
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
Approved WMO Date:	20-06-2023
Application type:	Amendment
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
Approved WMO Date:	28-08-2023
Application type:	Amendment
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
Approved WMO Date:	21-11-2023
Application type:	Amendment
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)
Approved WMO	

Date:	22-12-2023
Application type:	Amendment
Review commission:	CCMO: Centrale Commissie Mensgebonden Onderzoek (Den Haag)

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	ID
EU-CTR	CTIS2023-509848-10-00
EudraCT	EUCTR2018-001023-38-NL
ClinicalTrials.gov	NCT03651128;U1111-1217-9988
CCMO	NL66959.000.19