Clinical trial results:
A randomized, subject- and investigator-blinded, placebocontrolled, multi-center, multiple dose study to assess the efficacy and safety of CJM112 in patients with inadequately controlled moderate to severe asthma

Summary

EudraCT number	2017-000205-21
Trial protocol	DE DK BE SK
Global end of trial date	08 July 2019

Results information

Result version number	v1 (current)
This version publication date	19 July 2020
First version publication date	19 July 2020

Trial information

Trial identification

Sponsor protocol code	CCJM112X2204

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT03299686
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Novartis Pharmaceuticals
Sponsor organisation address	CH-4002, Basel, Switzerland,
Public contact	Clinical Disclosure Office, Novartis Pharmaceuticals, 41 613241111, novartis.email@novartis.com
Scientific contact	Clinical Disclosure Office, Novartis Pharmaceuticals, 41 613241111, Novartis.email@novartis.com

Notes:

Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	No
Does article 45 of REGULATION (EC) No 1901/2006 apply to this trial?	No
Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial?	No

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	08 July 2019
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	08 July 2019
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To determine whether treatment with CJM112 in subjects with inadequately controlled moderate to severe asthma leads to an improvement in airflow obstruction.

Protection of trial subjects:

The study was in compliance with the ethical principles derived from the Declaration of Helsinki and the International Conference on Harmonization (ICH) Good Clinical Practice (GCP) guidelines. All the local regulatory requirements pertinent to safety of trial subjects were also followed during the conduct of the trial.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	06 November 2017
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	No

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Argentina: 4
Country: Number of subjects enrolled	Belgium: 7
Country: Number of subjects enrolled	Denmark: 14
Country: Number of subjects enrolled	France: 7
Country: Number of subjects enrolled	Germany: 38
Country: Number of subjects enrolled	Israel: 10
Country: Number of subjects enrolled	Slovakia: 7
Country: Number of subjects enrolled	United States: 31
Worldwide total number of subjects	118
EEA total number of subjects	73

Notes:

Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23	0

months)	
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	82
From 65 to 84 years	36
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

Participants were from Argentina (2), Belgium (3), Germany (5), Denmark (4), France (2), Israel (3), Slovakia
(2), The United States (7)

Pre-assignment

Screening details:

After an initial screening visit, run-in period and baseline assessments, the eligible subjects entered the treatment period and were randomized in a 3:2 ratio to one of the two treatment groups.

Period 1

Period 1 title	Treatment Epoch
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator

Arms

Are arms mutually exclusive?	Yes
Arm title	CJM112 300 mg

Arm description:

Study treatment

Arm type	Experimental
Investigational medicinal product name	CJM112
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use

Dosage and administration details:

300 mg CJM112 subcutaneous injection

Arm title	Placebo

Arm description:

Placebo to CJM112

Arm type	Placebo
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use

Dosage and administration details:

300 mg placebo subcutaneous injection

Number of subjects in period 1	CJM112 300 mg	Placebo
Started	70	48
Completed	59	44
Not completed	11	4
Physician decision	1	-
Consent withdrawn by subject	2	-
Adverse event, non-fatal	8	4

Period 2	
Period 2 title	Follow-up Epoch
Is this the baseline period?	No
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator

Arms

Are arms mutually exclusive?	Yes
Arm title	CJM112 300 mg

Arm description:
Study treatment

Arm type	Experimental
Investigational medicinal product name	CJM112
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use

Dosage and administration details:
300 mg CJM112 subcutaneous injection

Arm title	Placebo

Arm description:
Placebo to CJM112

Arm type	Placebo
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use

Dosage and administration details:
300 mg placebo subcutaneous injection

Number of subjects in period 2	CJM112 300 mg	Placebo
Started	59	44
Completed	59	43
Not completed	0	1
Consent withdrawn by subject	-	1

Baseline characteristics

Reporting groups	
Reporting group title	CJM112 300 mg
Reporting group description: Study treatment	
Reporting group title	Placebo
Reporting group description: Placebo to CJM112	

Reporting group values	CJM112 300 mg	Placebo	Total
Number of subjects	70	48	118
Age categorical Units: Subjects			
In utero	0	0	0
Preterm newborn infants (gestational age < 37 wks)	0	0	0
Newborns (0-27 days)	0	0	0
Infants and toddlers (28 days-23 months)	0	0	0
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	0	0	0
Adults (18-64 years)	47	35	82
From 65-84 years	23	13	36
85 years and over	0	0	0
Age Continuous Units: Years			
arithmetic mean	57.1	55.9	
standard deviation	± 12.79	± 11.62	-
Sex: Female, Male Units: Participants			
Female	39	32	71
Male	31	16	47
Race/Ethnicity, Customized Units: Subjects			
Asian	2	0	2
Black or African American	6	1	7
Other	1	0	1
White	61	47	108

End points

End points reporting groups	
Reporting group title	CJM112 300 mg
Reporting group description: Study treatment	
Reporting group title	Placebo
Reporting group description: Placebo to CJM112	
Reporting group title	CJM112 300 mg
Reporting group description: Study treatment	
Reporting group title	Placebo
Reporting group description: Placebo to CJM112	

Primary: Change from baseline Forced Expiratory Volume in one second (FEV1)with protocol-defined informative prior

End point title	Change from baseline Forced Expiratory Volume in one second (FEV1)with protocol-defined informative prior
End point description: The primary efficacy analysis assessed the effect of CJM112 on the absolute change from baseline in trough FEV1 in mL compared to placebo on Day 92. Forced Expiratory Volume in one second (FEV1) is calculated as the volume of air forcibly exhaled in one second as measured by a spirometer. Baseline measurement was defined as the baseline visit pre-bronchodilator spirometry assessment.	
End point type	Primary
End point timeframe: Baseline, Day 92	

End point values	CJM112 300 mg	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	53	36		
Units: Liters				
arithmetic mean (standard deviation)	0.043 (± 0.031)	0.016 (± 0.030)		

Statistical analyses

Statistical analysis title	Mean difference
Statistical analysis description: Probability CJM112 better than placebo is 0.7374. Lower limit and upper limit represents the Credibility Interval from the Bayesian analysis.	
Comparison groups	Placebo v CJM112 300 mg

Number of subjects included in analysis	89
Analysis specification	Pre-specified
Analysis type	superiority
Method	Bayesian linear repeated measures model
Parameter estimate	Mean difference (net)
Point estimate	0.027
Confidence interval	
level	Other: 80 %
sides	2-sided
lower limit	-0.029
upper limit	0.082
Variability estimate	Standard deviation
Dispersion value	0.043

Secondary: Change from baseline Forced Expiratory Volume 1 (FEV1) % of predicted

End point title	Change from baseline Forced Expiratory Volume 1 (FEV1) % of predicted

End point description:

The secondary efficacy analyses assessed the effect of CJM112 on the absolute change from baseline in trough FEV1 in % of predicted compared to placebo on Day 92. Forced Expiratory Volume in one second (FEV1) was calculated as the volume of air forcibly exhaled in one second as measured by a spirometer. FEV1% of predicted is defined as FEV1% of the patient divided by the average FEV1% in the population for any person of similar age, sex and body composition. Pre-bronchodilator FEV1% of predicted was directly provided as part of the spirometry assessment.

End point type	Secondary

End point timeframe:

Baseline, Day 92

End point values	CJM112 300 mg	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	53	36		
Units: Percent				
least squares mean (standard error)	1.064 (± 0.914)	0.151 (± 1.105)		

Statistical analyses

Statistical analysis title	Mean difference
Comparison groups	CJM112 300 mg v Placebo

Number of subjects included in analysis	89
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.263 [1]
Method	Mixed models analysis
Parameter estimate	Mean difference (net)
Point estimate	0.913
Confidence interval	
level	Other: 80 %
sides	2-sided
lower limit	-0.939
upper limit	2.766
Variability estimate	Standard error of the mean
Dispersion value	1.434

Notes:

[1] - 1-sided p-value; p-value smaller than 0.1 is considered as statistically significant

Secondary: Change from baseline in Asthma Control Questionnaire 6 (ACQ6) score

End point title	Change from baseline in Asthma Control Questionnaire 6 (ACQ6) score

End point description:

The ACQ-6 is a validated asthma assessment tool that consists of 6 self-assessment questions. Each item on the ACQ-6 has a possible score ranging from 0 to 6 and the total score is the mean of all responses. The seven-point response scale: 0 = 'totally controlled' and 6 = 'severely uncontrolled.' Negative change from baseline values indicate improved asthma control.

End point type	Secondary

End point timeframe:

Baseline, Day 92

End point values	CJM112 300 mg	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	56	41		
Units: units on scale				
least squares mean (standard error)	-0.93 (± 0.09)	-0.71 (± 0.11)		

Statistical analyses

Statistical analysis title	Mean difference
Comparison groups	CJM112 300 mg v Placebo
Number of subjects included in analysis	97
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.061 [2]
Method	Mixed models analysis
Parameter estimate	Mean difference (net)
Point estimate	-0.22

Confidence interval	
level	Other: 80 %
sides	2-sided
lower limit	-0.41
upper limit	-0.04
Variability estimate	Standard error of the mean
Dispersion value	0.14

Notes:

[2] - 1-sided p-value; p-value smaller than 0.1 is considered as statistically significant

Secondary: Change from baseline in Asthma Control Questionnaire 7 (ACQ7) score

End point title	Change from baseline in Asthma Control Questionnaire 7 (ACQ7) score

End point description:

The ACQ-7 measured asthma symptom control and consists of 7 items: 5 on symptom assessment, 1 on rescue medication use and 1 on airway calibre (FEV1 % predicted). All seven items are scored on a 7-point Likert scale, with 0 indicating total control and 6 indicating poor control. The questions are equally weighted and the total score is the mean of the seven items. The first 6 questions of the ACQ-7 were completed by the participant while the last question was completed by the study investigator using data from the Master Scope spirometer. A negative change from baseline indicates improvement in lung function.

End point type	Secondary

End point timeframe:

Baseline, Day 92

End point values	CJM112 300 mg	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	53	36		
Units: units on scale				
least squares mean (standard error)	-0.83 (± 0.08)	-0.60 (± 0.10)		

Statistical analyses

Statistical analysis title	Mean difference
Comparison groups	CJM112 300 mg v Placebo
Number of subjects included in analysis	89
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.04 [3]
Method	Mixed models analysis
Parameter estimate	Mean difference (net)
Point estimate	-0.23
Confidence interval	
level	Other: 80 %
sides	2-sided
lower limit	-0.4
upper limit	-0.06

Variability estimate	Standard error of the mean
Dispersion value	0.13

Notes:

[3] - 1-sided p-value; p-value smaller than 0.1 is considered as statistically significant

Secondary: Percentage of patients with at least 0.5 decrease in ACQ7 score

End point title	Percentage of patients with at least 0.5 decrease in ACQ7 score

End point description:

The ACQ-7 measured asthma symptom control and consists of 7 items: 5 on symptom assessment, 1 on rescue medication use and 1 on airway calibre (FEV1 % predicted). All seven items are scored on a 7-point Likert scale, with 0 indicating total control and 6 indicating poor control. The questions are equally weighted and the total score is the mean of the seven items. The first 6 questions of the ACQ-7 were completed by the participant while the last question was completed by the study investigator using data from the Master Scope spirometer. A negative change from baseline indicates improvement in lung function.
An ACQ7 responder is defined as a patient with a decrease in score of greater or equal to 0.5 when compared to baseline.
No statistical analysis was planned for this primary outcome.

End point type	Secondary

End point timeframe:

Baseline, Day 92

End point values	CJM112 300 mg	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	53	36		
Units: Percentage				
number (not applicable)	71.7	52.8		

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of patients with Adverse Events (AEs) leading to discontinuation of study treatment

End point title	Percentage of patients with Adverse Events (AEs) leading to discontinuation of study treatment

End point description:

Number of patients with at least one adverse event leading to discontinuation of study treatment.
No statistical analysis was planned for this primary outcome.

End point type	Secondary

End point timeframe:

85 days

End point values	CJM112 300 mg	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	70	48		
Units: Percentage				
number (not applicable)	11.4	8.3		

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information	
Timeframe for reporting adverse events:	
Treatment-emergent adverse events	
Adverse event reporting additional description:	
Any sign or symptom that occurs during the study treatment plus the 91 days post treatment	
Assessment type	Systematic

Dictionary used	
Dictionary name	MedDRA
Dictionary version	22.0

Reporting groups	
Reporting group title	CJM112 300 mg
Reporting group description:	
CJM112 300 mg	
Reporting group title	Placebo
Reporting group description:	
Placebo	

Serious adverse events	CJM112 300 mg	Placebo	
Total subjects affected by serious adverse events			
subjects affected / exposed	3 / 70 (4.29%)	2 / 48 (4.17%)	
number of deaths (all causes)	0	0	
number of deaths resulting from adverse events	0	0	
Cardiac disorders			
Stress cardiomyopathy			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
General disorders and administration site conditions			
Asthenia			
subjects affected / exposed	1 / 70 (1.43%)	0 / 48 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Respiratory, thoracic and mediastinal disorders			
Asthmatic crisis			

subjects affected / exposed	1 / 70 (1.43%)	0 / 48 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Psychiatric disorders			
Depression			
subjects affected / exposed	1 / 70 (1.43%)	0 / 48 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Infections and infestations			
Pneumonia			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Urinary tract infection			
subjects affected / exposed	1 / 70 (1.43%)	0 / 48 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	

Frequency threshold for reporting non-serious adverse events: 2 %

Non-serious adverse events	CJM112 300 mg	Placebo	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	55 / 70 (78.57%)	38 / 48 (79.17%)	
General disorders and administration site conditions			
Asthenia			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	2	
Fatigue			
subjects affected / exposed	4 / 70 (5.71%)	3 / 48 (6.25%)	
occurrences (all)	4	6	
Injection site haematoma			
subjects affected / exposed	1 / 70 (1.43%)	1 / 48 (2.08%)	
occurrences (all)	1	2	
Oedema peripheral			

subjects affected / exposed	1 / 70 (1.43%)	1 / 48 (2.08%)	
occurrences (all)	1	1	
Pyrexia			
subjects affected / exposed	1 / 70 (1.43%)	1 / 48 (2.08%)	
occurrences (all)	1	1	
Reproductive system and breast disorders			
Prostatitis			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Respiratory, thoracic and mediastinal disorders			
Asthma			
subjects affected / exposed	16 / 70 (22.86%)	13 / 48 (27.08%)	
occurrences (all)	20	15	
Cough			
subjects affected / exposed	4 / 70 (5.71%)	4 / 48 (8.33%)	
occurrences (all)	5	4	
Dysphonia			
subjects affected / exposed	2 / 70 (2.86%)	0 / 48 (0.00%)	
occurrences (all)	2	0	
Dyspnoea			
subjects affected / exposed	2 / 70 (2.86%)	0 / 48 (0.00%)	
occurrences (all)	2	0	
Epistaxis			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Haemoptysis			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Nasal congestion			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Oropharyngeal pain			
subjects affected / exposed	3 / 70 (4.29%)	3 / 48 (6.25%)	
occurrences (all)	5	3	
Psychiatric disorders			

Insomnia			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Investigations			
Alanine aminotransferase increased			
subjects affected / exposed	0 / 70 (0.00%)	2 / 48 (4.17%)	
occurrences (all)	0	2	
Amylase increased			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Aspartate aminotransferase increased			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Blood alkaline phosphatase increased			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Blood bicarbonate decreased			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Blood cholesterol increased			
subjects affected / exposed	1 / 70 (1.43%)	1 / 48 (2.08%)	
occurrences (all)	1	1	
Blood creatine phosphokinase increased			
subjects affected / exposed	1 / 70 (1.43%)	1 / 48 (2.08%)	
occurrences (all)	1	1	
Blood creatinine increased			
subjects affected / exposed	1 / 70 (1.43%)	1 / 48 (2.08%)	
occurrences (all)	1	2	
Blood lactate dehydrogenase increased			
subjects affected / exposed	1 / 70 (1.43%)	1 / 48 (2.08%)	
occurrences (all)	1	1	
Blood potassium increased			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Blood triglycerides increased			

subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Gamma-glutamyltransferase increased			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Lipase increased			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Protein urine present			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	2	
Red blood cell sedimentation rate increased			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Injury, poisoning and procedural complications			
Arthropod sting			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Fall			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Ligament sprain			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Rib fracture			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Spinal compression fracture			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Subcutaneous haematoma			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Cardiac disorders			

Arrhythmia supraventricular			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Nervous system disorders			
Dizziness			
subjects affected / exposed	4 / 70 (5.71%)	0 / 48 (0.00%)	
occurrences (all)	5	0	
Headache			
subjects affected / exposed	8 / 70 (11.43%)	6 / 48 (12.50%)	
occurrences (all)	11	7	
Intercostal neuralgia			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Migraine			
subjects affected / exposed	2 / 70 (2.86%)	0 / 48 (0.00%)	
occurrences (all)	2	0	
Sciatica			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Gastrointestinal disorders			
Abdominal pain			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Constipation			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Diarrhoea			
subjects affected / exposed	3 / 70 (4.29%)	3 / 48 (6.25%)	
occurrences (all)	3	3	
Gastrooesophageal reflux disease			
subjects affected / exposed	2 / 70 (2.86%)	1 / 48 (2.08%)	
occurrences (all)	2	1	
Nausea			
subjects affected / exposed	3 / 70 (4.29%)	2 / 48 (4.17%)	
occurrences (all)	10	2	
Proctalgia			

subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Toothache			
subjects affected / exposed	1 / 70 (1.43%)	1 / 48 (2.08%)	
occurrences (all)	1	1	
Vomiting			
subjects affected / exposed	0 / 70 (0.00%)	2 / 48 (4.17%)	
occurrences (all)	0	3	
Skin and subcutaneous tissue disorders			
Rash			
subjects affected / exposed	1 / 70 (1.43%)	3 / 48 (6.25%)	
occurrences (all)	2	3	
Endocrine disorders			
Hypothyroidism			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Musculoskeletal and connective tissue disorders			
Arthralgia			
subjects affected / exposed	3 / 70 (4.29%)	1 / 48 (2.08%)	
occurrences (all)	3	1	
Back pain			
subjects affected / exposed	3 / 70 (4.29%)	5 / 48 (10.42%)	
occurrences (all)	3	5	
Intervertebral disc protrusion			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Limb discomfort			
subjects affected / exposed	2 / 70 (2.86%)	0 / 48 (0.00%)	
occurrences (all)	4	0	
Musculoskeletal pain			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Musculoskeletal stiffness			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Osteoarthritis			

subjects affected / exposed	0 / 70 (0.00%)	2 / 48 (4.17%)	
occurrences (all)	0	2	
Pain in extremity			
subjects affected / exposed	2 / 70 (2.86%)	0 / 48 (0.00%)	
occurrences (all)	2	0	
Infections and infestations			
Bronchitis			
subjects affected / exposed	5 / 70 (7.14%)	3 / 48 (6.25%)	
occurrences (all)	5	4	
Conjunctivitis			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Cystitis			
subjects affected / exposed	2 / 70 (2.86%)	1 / 48 (2.08%)	
occurrences (all)	7	1	
Gastroenteritis			
subjects affected / exposed	2 / 70 (2.86%)	1 / 48 (2.08%)	
occurrences (all)	2	1	
Gastroenteritis viral			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Lower respiratory tract infection			
subjects affected / exposed	2 / 70 (2.86%)	0 / 48 (0.00%)	
occurrences (all)	2	0	
Nasopharyngitis			
subjects affected / exposed	16 / 70 (22.86%)	6 / 48 (12.50%)	
occurrences (all)	23	6	
Oral candidiasis			
subjects affected / exposed	4 / 70 (5.71%)	0 / 48 (0.00%)	
occurrences (all)	5	0	
Oral herpes			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Pharyngitis			
subjects affected / exposed	1 / 70 (1.43%)	2 / 48 (4.17%)	
occurrences (all)	1	2	

Respiratory tract infection			
subjects affected / exposed	2 / 70 (2.86%)	1 / 48 (2.08%)	
occurrences (all)	2	1	
Respiratory tract infection viral			
subjects affected / exposed	2 / 70 (2.86%)	1 / 48 (2.08%)	
occurrences (all)	2	1	
Rhinitis			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	2	
Sinusitis			
subjects affected / exposed	3 / 70 (4.29%)	0 / 48 (0.00%)	
occurrences (all)	3	0	
Tooth abscess			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Upper respiratory tract infection			
subjects affected / exposed	4 / 70 (5.71%)	2 / 48 (4.17%)	
occurrences (all)	4	3	
Urinary tract infection			
subjects affected / exposed	1 / 70 (1.43%)	2 / 48 (4.17%)	
occurrences (all)	1	2	
Viral upper respiratory tract infection			
subjects affected / exposed	2 / 70 (2.86%)	1 / 48 (2.08%)	
occurrences (all)	3	1	
Metabolism and nutrition disorders			
Gout			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	
Type 2 diabetes mellitus			
subjects affected / exposed	0 / 70 (0.00%)	1 / 48 (2.08%)	
occurrences (all)	0	1	

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
29 August 2017	- Immunogenicity assessment was added on study Day 15 to implement the recommendation from the Health Authority - Monitoring for hypersensitivity and anaphylaxis to the standard safety procedures was included to monitor all subjects post-injection for hypersensitivity and anaphylaxis events - Correct drug concentration was updated - Anaphylaxis was added as an example of clinically significant events that could lead to discontinuation of dosing - Assessment of oxygen saturation by pulse oximetry was included.
15 May 2018	- Protocol synopsis section was updated to reflect additional exclusioncriteria related to smoking/inhaling marijuana, e-cigarettes, and other recreational foreign substances other than nicotine or tobacco products - Clinical data sections were updated with information on Hidradenitis Suppurativa studies with CJM112 - Exploratory objectives were updated to include 1-FEV3/FVC and 1-FEV6/FVC - Baseline window changed to D-5 to D-2 and study design was updated accordingly - Inclusion criteria for IgE and eosinophils were changed to clarify that values should be < 150 IU/ mL (for IgE levels) and < 300/µL (for eosinophils levels) both at screening and baseline visits - Exclusion criteria related to smoking/inhaling marijuana, e-cigarettes, and other recreational foreign substances other than nicotine or tobacco products was added - Dietary and smoking restrictions were updated to a requirement, instead of a suggestion - Section 6.4 was updated to reflect the fact that there were no unblinded staff at the sites - Visit 201 was included in the study schedule

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported