Clinical trial results:
A Phase-2 open label study to assess the pharmacodynamic and pharmacokinetic properties of a single subcutaneous injection of RUC-4 in patients with ST-elevation myocardial infarction presenting to cardiac catheterization lab with planned primary coronary angioplasty

Summary

EudraCT number	2019-004282-41
Trial protocol	NL
Global end of trial date	04 November 2020

Results information

Result version number	v1 (current)
This version publication date	29 March 2022
First version publication date	29 March 2022
Summary attachment (see zip file)	CEL-02 Summary Results 28May2021 (M2. CEL-02 CSR Synopsis 28May2021.pdf)

Trial information

Trial identification

Sponsor protocol code	CEL-02

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT04284995
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	CeleCor Therapeutics, Inc.
Sponsor organisation address	1155 Camino Del Mar Suite 481, Del Mar, United States, CA 92014
Public contact	S. Postma, Diagram BV, 0031 38426 2999, s.postma@diagram-zwolle.nl
Scientific contact	S. Postma, Diagram BV, 0031 38426 2999, s.postma@diagram-zwolle.nl

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	28 May 2021
Is this the analysis of the primary completion data?	Yes
Primary completion date	04 November 2020
Global end of trial reached?	Yes
Global end of trial date	04 November 2020
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

- To assess the PD properties of a single subcutaneous injection of RUC-4 in STEMI patients presenting to the CCL with the aim to perform primary coronary angioplasty.
- To assess the PK properties of a single subcutaneous injection of RUC-4 in STEMI patients presenting to the CCL with the aim to perform primary coronary angioplasty.
- To assess safety and tolerability of RUC-4

Protection of trial subjects:

At the end of each cohort, the SRC (Safety Review Committee) has received an interim analysis of the safety, laboratory, and PK/PD data. After reviewing the interim analysis, the SRC has provided written recommendation to the PI whether to proceed with the same dose, or escalate to a higher dose or lower the dose to be studied in the next cohort.

Background therapy:

The use of aspirin or an oral P2Y12 antagonist before catheterization is allowed, but not mandated. Heparin is also allowed, as these medications are standard of care for STEMI patients. If heparin was administered pre-hospital, an activated clotting time (ACT) measurement should be performed at the CCL. If the ACT is <200 seconds, additional heparin is recommended.

There are no particular prohibitions and restrictions in this study.

Regular standard of care is performed from the provision of informed consent through the last study mandated patient visit.

Evidence for comparator:

N/A; no comparatror used in this trial.

Actual start date of recruitment	03 June 2020
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	Yes

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Netherlands: 27
Worldwide total number of subjects	27
EEA total number of subjects	27

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 months)	0
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	16
From 65 to 84 years	10
85 years and over	1

Subject disposition

Recruitment

Recruitment details:

This study was conducted in subjects with documented STEMI with onset of the cardiac ischemic symptoms within 6 hr before enrollment who are planned for primary PCI. Evaluation for eligibility performed in the CCL and witnessed verbal ICF was obtained. Before hospital discharge written ICF was obtained

Pre-assignment

Screening details:

Screening period: 03Jun - 07Oct2020.
73 patients screened, 27 patients enrolled.
Main reasons not enrolled:
- Eligibility criteria not met (20)
- Patient admitted outside business hours (14)

Period 1

Period 1 title	Baseline (overall period)
Is this the baseline period?	Yes
Allocation method	Non-randomised - controlled
Blinding used	Not blinded

Blinding implementation details:

N/A

Arms

Are arms mutually exclusive?	Yes
Arm title	Cohort 1

Arm description:

All patients received a single SC dose of RUC-4 of 0.075 mg/kg.

Arm type	Experimental
Investigational medicinal product name	RUC-4
Investigational medicinal product code	140962
Other name	
Pharmaceutical forms	Solution for injection in vial
Routes of administration	Subcutaneous use

Dosage and administration details:

A single dose of RUC-4 of 0.075 mg/kg.

Arm title	Cohort 2

Arm description:

All patients received a single SC dose of RUC-4 of 0.090 mg/kg.

Arm type	Experimental
Investigational medicinal product name	RUC-4
Investigational medicinal product code	140962
Other name	
Pharmaceutical forms	Solution for injection in vial
Routes of administration	Subcutaneous use

Dosage and administration details:

A single dose of RUC-4 of 0.090 mg/kg.

Arm title	Cohort 3

Arm description:

All patients received a single SC dose of RUC-4 of 0.110 mg/kg.

Arm type	Experimental
Investigational medicinal product name	RUC-4
Investigational medicinal product code	140962
Other name	
Pharmaceutical forms	Solution for injection in vial
Routes of administration	Subcutaneous use

Dosage and administration details:

A single dose of RUC-4 of 0.110 mg/kg.

Number of subjects in period 1	Cohort 1	Cohort 2	Cohort 3
Started	8	9	10
Completed	8	9	9
Not completed	0	0	1
Consent withdrawn by subject	-	-	1

Baseline characteristics

Reporting groups	
Reporting group title	Cohort 1
Reporting group description:	
All patients received a single SC dose of RUC-4 of 0.075 mg/kg.	
Reporting group title	Cohort 2
Reporting group description:	
All patients received a single SC dose of RUC-4 of 0.090 mg/kg.	
Reporting group title	Cohort 3
Reporting group description:	
All patients received a single SC dose of RUC-4 of 0.110 mg/kg.	

Reporting group values	Cohort 1	Cohort 2	Cohort 3
Number of subjects	8	9	10
Age categorical Units: Subjects			
Adults (18-64 years)	5	6	5
From 65-84 years	3	2	5
85 years and over	0	1	0
Age continuous Units: years			
arithmetic mean	59	63	62.60
standard deviation	± 12.51	± 13.84	± 13.09
Gender categorical Units: Subjects			
Female	2	2	3
Male	6	7	7

Reporting group values	Total		
Number of subjects	27		
Age categorical Units: Subjects			
Adults (18-64 years)	16		
From 65-84 years	10		
85 years and over	1		
Age continuous Units: years arithmetic mean standard deviation	- -		
Gender categorical Units: Subjects			
Female	7		
Male	20		

Subject analysis sets

Subject analysis set title	Safety Population
Subject analysis set type	Safety analysis

Subject analysis set description:

The Safety population included all enrolled subjects who received a SC dose of RUC-4.

Subject analysis set title	PK Population
Subject analysis set type	Modified intention-to-treat

Subject analysis set description:

The PK Analysis Set included all subjects who receive a SC dose of RUC-4 and who had evaluable PK data.

Subject analysis set title	PD Population
Subject analysis set type	Modified intention-to-treat

Subject analysis set description:

The PD Analysis Set included all subjects who receive a SC dose of RUC-4 and who had evaluable PD data.

Reporting group values	Safety Population	PK Population	PD Population
Number of subjects	27	26	24
Age categorical Units: Subjects			
Adults (18-64 years)	16	15	14
From 65-84 years	10	10	9
85 years and over	1	1	1
Age continuous Units: years			
arithmetic mean	61.67	62.07	61.79
standard deviation	± 12.79	± 12.86	± 13.36
Gender categorical Units: Subjects			
Female	7	7	6
Male	20	19	18

End points

End points reporting groups

Reporting group title	Cohort 1
Reporting group description:	
All patients received a single SC dose of RUC-4 of 0.075 mg/kg.	
Reporting group title	Cohort 2
Reporting group description:	
All patients received a single SC dose of RUC-4 of 0.090 mg/kg.	
Reporting group title	Cohort 3
Reporting group description:	
All patients received a single SC dose of RUC-4 of 0.110 mg/kg.	
Subject analysis set title	Safety Population
Subject analysis set type	Safety analysis
Subject analysis set description:	
The Safety population included all enrolled subjects who received a SC dose of RUC-4.	
Subject analysis set title	PK Population
Subject analysis set type	Modified intention-to-treat
Subject analysis set description:	
The PK Analysis Set included all subjects who receive a SC dose of RUC-4 and who had evaluable PK data.	
Subject analysis set title	PD Population
Subject analysis set type	Modified intention-to-treat
Subject analysis set description:	
The PD Analysis Set included all subjects who receive a SC dose of RUC-4 and who had evaluable PD data.	

Primary: Inhibition of TRAP-induced platelet aggregation 15 min post dose

End point title	Inhibition of TRAP-induced platelet aggregation 15 min post dose[1]
End point description:	
End point type	Primary
End point timeframe:	
At 15 minutes after administration of RUC-4	

Notes:

[1] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No statistical analysis was performed for this endpoint. All statistical summaries were descriptive in nature. No hypothesis testing was planned for primary and secondary analyses.

End point values	Cohort 1	Cohort 2	Cohort 3	PD Population
Subject group type	Reporting group	Reporting group	Reporting group	Subject analysis set
Number of subjects analysed	8	8	8	24
Units: percent				
arithmetic mean (standard deviation)	77.48 (± 9.06)	87.46 (± 6.52)	91.70 (± 7.66)	85.54 (± 9.64)

Statistical analyses

No statistical analyses for this end point

Primary: Pharmacokinetic Parameter area under the curve from time zero to time of last quantifiable concentration [AUC0-last]

End point title	Pharmacokinetic Parameter area under the curve from time zero to time of last quantifiable concentration [AUC0-last][2]

End point description:

End point type	Primary

End point timeframe:

PK parameters will be determined from blood concentrations at baseline (before study drug administration), 15, 45, 90, 120 and 180 minutes after administration of a single SC injection of RUC-4

Notes:

[2] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No statistical analysis was performed for this endpoint. All statistical summaries were descriptive in nature. No hypothesis testing was planned for primary and secondary analyses.

End point values	Cohort 1	Cohort 2	Cohort 3	PK Population
Subject group type	Reporting group	Reporting group	Reporting group	Subject analysis set
Number of subjects analysed	8	9	9	26
Units: h*ng/ml				
geometric mean (geometric coefficient of variation)	93.39 (± 25.61)	126.20 (± 66.12)	117.74 (± 29.37)	112.30 (± 43.99)

Statistical analyses

No statistical analyses for this end point

Primary: Inhibition of TRAP-induced platelet aggregation 120 min post dose

End point title	Inhibition of TRAP-induced platelet aggregation 120 min post dose[3]

End point description:

End point type	Primary

End point timeframe:

120 minutes post dose

Notes:

[3] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No statistical analysis was performed for this endpoint. All statistical summaries were descriptive in nature. No hypothesis testing was planned for primary and secondary analyses.

End point values	Cohort 1	Cohort 2	Cohort 3	PD Population
Subject group type	Reporting group	Reporting group	Reporting group	Subject analysis set
Number of subjects analysed	8	8	8	24
Units: percent				
arithmetic mean (standard deviation)	33.59 (± 8.33)	44.46 (± 30.85)	46.18 (± 7.52)	41.41 (± 18.99)

Statistical analyses

No statistical analyses for this end point

Primary: Pharmacokinetic Parameter Observed maximum blood concentration (Cmax)

End point title	Pharmacokinetic Parameter Observed maximum blood concentration (Cmax)[4]

End point description:

End point type	Primary

End point timeframe:

PK parameters will be determined from blood concentrations at baseline (before study drug administration), 15, 45, 90, 120 and 180 minutes after administration of a single SC injection of RUC-4

Notes:

[4] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No statistical analysis was performed for this endpoint. All statistical summaries were descriptive in nature. No hypothesis testing was planned for primary and secondary analyses.

End point values	Cohort 1	Cohort 2	Cohort 3	PK Population
Subject group type	Reporting group	Reporting group	Reporting group	Subject analysis set
Number of subjects analysed	8	9	9	26
Units: ng/ml				
geometric mean (geometric coefficient of variation)	93.63 (± 27.70)	131.04 (± 55.30)	133.02 (± 21.24)	118.78 (± 39.70)

Statistical analyses

No statistical analyses for this end point

Primary: Pharmacokinetic Parameter area under the curve from time zero extrapolated to infinite time[AUC0-inf]

End point title	Pharmacokinetic Parameter area under the curve from time zero extrapolated to infinite time[AUC0-inf][5]

End point description:

End point type	Primary

End point timeframe:

PK parameters will be determined from blood concentrations at baseline (before study drug administration), 15, 45, 90, 120 and 180 minutes after administration of a single SC injection of RUC-4

Notes:

[5] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No statistical analysis was performed for this endpoint. All statistical summaries were descriptive in nature. No hypothesis testing was planned for primary and secondary analyses.

End point values	Cohort 1	Cohort 2	Cohort 3	PK Population
Subject group type	Reporting group	Reporting group	Reporting group	Subject analysis set
Number of subjects analysed	8	9	9	26
Units: h*ng/mL				
geometric mean (geometric coefficient of variation)	106.27 (± 20.67)	136.85 (± 61.77)	139.28 (± 31.51)	127.38 (± 41.75)

Statistical analyses

No statistical analyses for this end point

Primary: Pharmacokinetic Parameter Observed last blood concentration (Clast)

End point title	Pharmacokinetic Parameter Observed last blood concentration (Clast)[6]

End point description:

End point type	Primary

End point timeframe:

PK parameters will be determined from blood concentrations at baseline (before study drug administration), 15, 45, 90, 120 and 180 minutes after administration of a single SC injection of RUC-4

Notes:

[6] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No statistical analysis was performed for this endpoint. All statistical summaries were descriptive in nature. No hypothesis testing was planned for primary and secondary analyses.

End point values	Cohort 1	Cohort 2	Cohort 3	PK Population
Subject group type	Reporting group	Reporting group	Reporting group	Subject analysis set
Number of subjects analysed	8	9	9	26
Units: ng/mL				
geometric mean (geometric coefficient of variation)	8.09 (± 31.70)	9.28 (± 22.88)	11.12 (± 42.75)	9.47 (± 34.78)

Statistical analyses

No statistical analyses for this end point

Primary: Inhibition of TRAP + PAR-4 induced platelet aggregation 15 min post dose

End point title	Inhibition of TRAP + PAR-4 induced platelet aggregation 15 min post dose[7]

End point description:

End point type	Primary

End point timeframe:

At 15 minutes after administration of RUC-4

Notes:

[7] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No statistical analysis was performed for this endpoint. All statistical summaries were

descriptive in nature. No hypothesis testing was planned for primary and secondary analyses.

End point values	Cohort 1	Cohort 2	Cohort 3	PD Population
Subject group type	Reporting group	Reporting group	Reporting group	Subject analysis set
Number of subjects analysed	8	8	8	24
Units: percentage				
arithmetic mean (standard deviation)	86.03 (± 8.07)	92.75 (± 3.71)	93.04 (± 5.28)	90.61 (± 6.59)

Statistical analyses

No statistical analyses for this end point

Primary: Inhibition of TRAP + PAR-4 induced platelet aggregation 120 min post dose

End point title	Inhibition of TRAP + PAR-4 induced platelet aggregation 120 min post dose[8]

End point description:

End point type	Primary

End point timeframe:

At 120 minutes after administration of RUC-4

Notes:

[8] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No statistical analysis was performed for this endpoint. All statistical summaries were descriptive in nature. No hypothesis testing was planned for primary and secondary analyses.

End point values	Cohort 1	Cohort 2	Cohort 3	PD Population
Subject group type	Reporting group	Reporting group	Reporting group	Subject analysis set
Number of subjects analysed	8	8	8	8
Units: percentage				
arithmetic mean (standard deviation)	20.43 (± 16.38)	33.61 (± 37.43)	34.10 (± 16.23)	29.38 (± 25.10)

Statistical analyses

No statistical analyses for this end point

Primary: Proportion of subjects that showed persistence, >= 50% inhibition TRAP induced platelet aggregation

End point title	Proportion of subjects that showed persistence, >= 50% inhibition TRAP induced platelet aggregation[9]

End point description:

End point type	Primary

End point timeframe:

120 minutes post dose

Notes:

[9] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No statistical analysis was performed for this endpoint. All statistical summaries were descriptive in nature. No hypothesis testing was planned for primary and secondary analyses.

End point values	Cohort 1	Cohort 2	Cohort 3	PD Population
Subject group type	Reporting group	Reporting group	Reporting group	Subject analysis set
Number of subjects analysed	8	8	8	24
Units: number				
>= 50%	0	2	4	6

Statistical analyses

No statistical analyses for this end point

Primary: Proportion of subjects that showed persistence, >= 50% inhibition TRAP + PAR-4 induced platelet aggregation

End point title	Proportion of subjects that showed persistence, >= 50% inhibition TRAP + PAR-4 induced platelet aggregation[10]

End point description:

End point type	Primary

End point timeframe:

120 minutes post dose

Notes:

[10] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No statistical analysis was performed for this endpoint. All statistical summaries were descriptive in nature. No hypothesis testing was planned for primary and secondary analyses.

End point values	Cohort 1	Cohort 2	Cohort 3	PD Population
Subject group type	Reporting group	Reporting group	Reporting group	Subject analysis set
Number of subjects analysed	8	8	8	24
Units: number				
>= 50%	0	2	1	3

Statistical analyses

No statistical analyses for this end point

Primary: Proportion of subjects that showed >= 77% inhibition TRAP induced platelet aggregation

End point title	Proportion of subjects that showed >= 77% inhibition TRAP induced platelet aggregation[11]

End point description:

End point type	Primary

End point timeframe:

15 minutes post dose

Notes:

[11] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No statistical analysis was performed for this endpoint. All statistical summaries were descriptive in nature. No hypothesis testing was planned for primary and secondary analyses.

End point values	Cohort 1	Cohort 2	Cohort 3	PD Population
Subject group type	Reporting group	Reporting group	Reporting group	Subject analysis set
Number of subjects analysed	8	8	8	24
Units: number				
>= 77%	3	7	7	17

Statistical analyses

No statistical analyses for this end point

Primary: Proportion of subjects that showed >= 77% inhibition TRAP + PAR-4 induced platelet aggregation

End point title	Proportion of subjects that showed >= 77% inhibition TRAP + PAR-4 induced platelet aggregation[12]

End point description:

End point type	Primary

End point timeframe:

15 minutes post dose

Notes:

[12] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No statistical analysis was performed for this endpoint

End point values	Cohort 1	Cohort 2	Cohort 3	PD Population
Subject group type	Reporting group	Reporting group	Reporting group	Subject analysis set
Number of subjects analysed	8	8	8	24
Units: number				
>= 77%	7	8	8	23

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Injection Site Reaction

End point title	Injection Site Reaction

End point description:

Safety and tolerability parameters.

End point type	Other pre-specified

End point timeframe:

At baseline, hospital discharge, 15 days Follow-UP and 30 days Follow-Up.

End point values	Cohort 1	Cohort 2	Cohort 3	Safety Population
Subject group type	Reporting group	Reporting group	Reporting group	Subject analysis set
Number of subjects analysed	8	9	10	27
Units: number	0	1	0	1

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Adverse events (AEs) were collected beginning after witnessed verbal IC is obtained till end of study, i.e. 30 days after study treatment.

Adverse event reporting additional description:

All (S)AEs reported spontaneously by the patient or observed by the investigator or his staff were recorded.

Assessment type	Systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	22.1

Reporting groups

Reporting group title	Cohort 1

Reporting group description:

All patients received a single SC dose of RUC-4 of 0.075 mg/kg.

Reporting group title	Cohort 2

Reporting group description:

All patients received a single SC dose of RUC-4 of 0.090 mg/kg.

Reporting group title	Cohort 3

Reporting group description:

All patients received a single SC dose of RUC-4 of 0.110 mg/kg.

Serious adverse events	Cohort 1	Cohort 2	Cohort 3
Total subjects affected by serious adverse events			
subjects affected / exposed	2 / 8 (25.00%)	2 / 9 (22.22%)	4 / 10 (40.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Lung neoplasm malignant			
subjects affected / exposed	0 / 8 (0.00%)	1 / 9 (11.11%)	0 / 10 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Injury, poisoning and procedural complications			
Vascular access site haematoma			
subjects affected / exposed	1 / 8 (12.50%)	0 / 9 (0.00%)	1 / 10 (10.00%)
occurrences causally related to treatment / all	1 / 1	0 / 0	1 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Cardiac disorders			

Cardiac failure			
subjects affected / exposed	0 / 8 (0.00%)	1 / 9 (11.11%)	1 / 10 (10.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Myocardial infarction			
subjects affected / exposed	0 / 8 (0.00%)	0 / 9 (0.00%)	1 / 10 (10.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Ventricular tachycardia			
subjects affected / exposed	0 / 8 (0.00%)	1 / 9 (11.11%)	0 / 10 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Nervous system disorders			
Cerebrovascular accident			
subjects affected / exposed	0 / 8 (0.00%)	0 / 9 (0.00%)	1 / 10 (10.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Skin and subcutaneous tissue disorders			
Angioedema			
subjects affected / exposed	0 / 8 (0.00%)	0 / 9 (0.00%)	1 / 10 (10.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Renal and urinary disorders			
Acute kidney injury			
subjects affected / exposed	0 / 8 (0.00%)	0 / 9 (0.00%)	1 / 10 (10.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Infections and infestations			
Respiratory tract infection			
subjects affected / exposed	1 / 8 (12.50%)	0 / 9 (0.00%)	0 / 10 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Frequency threshold for reporting non-serious adverse events: 4 %

Non-serious adverse events	Cohort 1	Cohort 2	Cohort 3
Total subjects affected by non-serious adverse events			
subjects affected / exposed	8 / 8 (100.00%)	7 / 9 (77.78%)	8 / 10 (80.00%)
Injury, poisoning and procedural complications			
Vascular access site complication			
subjects affected / exposed	3 / 8 (37.50%)	0 / 9 (0.00%)	3 / 10 (30.00%)
occurrences (all)	1	1	1
Cardiac disorders			
Atrial fibrillation			
subjects affected / exposed	1 / 8 (12.50%)	1 / 9 (11.11%)	1 / 10 (10.00%)
occurrences (all)	1	1	1
General disorders and administration site conditions			
Injection site bruising			
subjects affected / exposed	3 / 8 (37.50%)	4 / 9 (44.44%)	4 / 10 (40.00%)
occurrences (all)	1	1	1
Fatigue			
subjects affected / exposed	2 / 8 (25.00%)	1 / 9 (11.11%)	0 / 10 (0.00%)
occurrences (all)	2	1	0
Respiratory, thoracic and mediastinal disorders			
Dyspnoea			
subjects affected / exposed	1 / 8 (12.50%)	2 / 9 (22.22%)	0 / 10 (0.00%)
occurrences (all)	1	2	0

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
30 April 2020	- Additional PD measurement at 240 minutes if the dose of the study drug is increased (cohort 2 and/or 3) - Add exclusion criteria regarding COVID-19 infection - Definition of causal relationships with study drug and PCI procedure has been added - As the impact of STEMI on RUC-4 PK and PD in patients is not known, study CEL-02 is designed to assess PD and PK properties of the weight-adjusted dose of RUC-4 (mg/kg) required to achieve 77% or greater inhibition of TRAP-induced platelet aggregation (amendment: 77% instead of 90%).
10 September 2020	-Additional heparin administration if ACT is <200 seconds instead of <250 seconds. The ACT cutoff value for administration of an additional dose of heparin is lowered to <200 instead of below <250 seconds, according to standard treatment guidelines to reduce heparin administration when using an αIIbβ3 inhibitor -Adapt exclusion criteria regarding COVID-19 infection. Instead of suspicion for COVID-19 infection it is preferred to only exclude confirmed COVID-19 infection. There were a number of exclusions based on this criterion of suspected infection, whereas afterwards these patients appeared not to be infected and could have participated in the trial. -Adapt inclusion criteria regarding persistent vs ongoing ST elevation. Has been adapted to include subjects with resolved ST elevation as well, as for the response to the study drug it does not matter whether ST elevation is persistent or has been resolved. -Remove exclusion criterium regarding de novo AF. De novo AF has been removed, as this criterion was included in order to exclude type 2 myocardial infarction, which is already an exclusion criterion (no. 2), therefore this criterion is redundant. -VerifyNow measurement now includes additional BASE channel; P2Y12 Test cartridges instead of PRU. This channel identifies the percentage inhibition directly related to the study drug, while filtering the inhibitory effects from the P2Y12 blocker ticagrelor.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

Limitations of the trial such as small numbers of subjects analysed or technical problems leading to unreliable data.

N/A.

Notes: